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ABSTRACT

The final report describes the accomplishments of the 3-year project, "Training Alliances in Health and Education" (TAHE), a program designed to involve allied health professionals and Professional Development and Dissemination (PRODD) cemters in efforts to develop a coordinated delivery system to meet the education and education-related health needs of children with handicapping conditions. The report's 13 papers present process, concept, and evaluation summaries of the project's efforts at developing interdisciplinary training models and activities. Papers have the following titles and authors: "After Three Years of Effort--Wherein Lie the Successes?" (J. Raymond); "Accepting Territoriality in Pursuit of Interdisciplinary Training and Teamwork" (H. Favner); "Interdisciplinary Awareness and Barriers to Collaboration" (J. Campbell); "Generic Core Competencies: An Assessment of University Curriculum in Health and Education Programs" (O. Kimball); "Securing Faculty Commitment" (J. Seaton); "The Community and the University: Seven Steps to Collaboration" (G. Hansen); "Involving Students in Efforts for Interdisciplinary Cooperation" (A. Van Sant); "Student Involvement in Interdisciplinary Training" (G. Hansen); "Strategies for Integrating Generic Core Competencies into Curricula and Training Activities" (T. Heinze); "Development and Utilization of Audio-Visual Materials" (S. Brown); "PAS--A Strategy for Monitoring Project Progress" (L. Williams); "Changes in Relationships Among University Programs" (J. Seaton); "Evaluating TAHE/PRODD as Planned Institutional Change: Reflections and Prospects" (D. Seibold). Appendices provide generic guidelines for providers of services to persons with disabilities, a listing of competencies for professionals working with children having handicapping conditions, and a listing of materials and publications avilable through project centers. (DB)

TRAINING ALLIANCES IN HEALTH AND EDUCATION— A FINAL REPORT

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1986

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ABOUT ASAHP

The American Society of Allied Health Professions (ASAHP) is a national nonprofit scientific and professional organization whose membership consists of educational institutions, professional organizations, clinical services, and individuals devoted to allied health education, research, and service delivery. Since its incorporation in 1967, ASAHP has been committed to addressing the critical issues affecting allied health education, including health care legislation, manpower needs, personnel preparation and utilization, accreditation and professional standards of practice, and technological advances in the health care field.

Along with over 1,300 individual members, the Society serves and represents a constituency of 20 professional organizations (whose members total approximately 310,000 professionals in related services), and 120 collegiate schools of Allied Health, containing close to 1,000 Allied Health educational programs (graduating approximately 36,500 professionals each year). Graduates of the Allied Health Sciences account for as many as 1 out of every 11 graduates from higher education institutions.

As the national organization which represents the broad interests of allied health education, ASAHP stands at the center of a vast network of resources—educational institutions, professional organizations, practitioners, employers, and others—which can be mobilized to bring about changes in education that will improve the quality and cost effectiveness of health care. Because of ASAHP's national leadership, the Society is in a unique position to foster efforts by the field toward attainment of the long-range goal espoused by the 1980 Report of the National Commission on Allied Health Education (NCAHE): "a health workforce that meets the service needs of the future effectively, efficiently, and humanely."

ASAHP's National Office is located at 1101 Connecticut Avenue, N.W., Suite 700, Washington, D.C. 20036. Telephone (202) 857-1150.

FORWARD

The American Society of Allied Health Professions (ASAHP) is pleased to present this Final Report detailing the accomplishments of the Society's three-year project "Training Alliances in Health and Education" (TAHE), supported through a grant from the Office of Special Education and Rehabilitative Services (OSERS), U.S. Department of Education. Building upon the outcomes of ASAHP's previous three-year advocacy project, TAHE has further explored the critical training and coordination concerns identified in ASAHP's 1982 Forum, "Alliances in Health and Education for Disabled Children and Youth: Directions for the 80s." With teams of chief administrators in allied health and teacher education exploring both barriers to and strategies for collaborative training programs in health and education, the stage was set for the development of TAHE.

In publishing this document, the American Society of Allied Health Professions hopes to further the theme of the project, i.e., collaboration among the many health and education programs which prepare students to serve youngsters with disabilities and their families. The Society is pleased to provide this publication which offers both a theoretical framework and some very practical approaches for health and education administrators who are in a position to effect curricular changes on their campuses.

The materials contained herein are the results of the expertise and dedication of a number of people, including the Advisory Council, staff, faculty, and resource consultants of the TAHE project. Other ASAHP publications which the reader may find helpful in addressing the needs and strategies for collaborative training programs include: **Alliances in Health and Education: Serving Youngsters with Special Needs,** with **Instructors Guide** (1982); **Alliances in Health and Education for Disabled Children and Youth: Directions for the 80s** (1982); and **Cooperative Program Initiatives Survey** (1986).

The Society's strong commitment to its advocacy role on behalf of persons with disabilities is illustrated not only in these documents and the efforts initiated through these projects, but also through the on-going activities planned by the Society's designated Professional Development and Dissemination (PRODD) Centers at California State University-Fresno (CSU-F), Northern Illinois University (NIU), and Virginia Commonwealth University (VCU).

With sincere appreciation to each of our contributors, we wish to acknowledge particularly the contributions and commitment of TAHE's Project Directors, Beverly Brightly and Patricia Nugent, as well as the PRODD Center Directors and Coordinators: Sanford Brown and Gwen Hansen (CSU-F), Olive Kimball and Jim Campbell (NIU), and Thomas Barker and Jennie Seaton (VCU).

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It is impossible to enumerate all of the people who have contributed to or been touched by "Training Alliances in Health and Education" (TAHE). The dimensions of this project have far exceeded the involvement and planning of a few individuals. However, particular credit and recognition must be given to the following:

Dr. David Siebold, external TAHE evaluator, who both assisted in the original evaluation design and participated in all evaluation components of the project;

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PRODD Coordinators and Management Team Members at these Centers for their tenacity, sensitivity and achievement in responding to project objectives;

TAHE Advisory Committee members, who conceptualized ASAHP's continuation grant in "Training Alliances in Health and Education" to support the Society's Advocacy Initiative for Persons with Disabilities;

ASAHP Board of Directors, who have supported the project throughout and have recently taken formal action to redesignate CSU, NIU, and VCU as PRODD Centers for the next three years;

Dr. Carolyn Del Polito, ASAHP Executive Director, for her leadership and creativity in facilitating the total program.

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INTRODUCTION —
Background and Purpose

BEVERLY E. BRIGHTLY

Fragmentation in patient care is not unusual given the increase in the number of allied health specialities in health care. This fragmentation is further created when the patient is a child served in a school setting by regular and special educators. Allied health specialists and educators may deliver services with little understanding of the responsibilities and requirements of other professionals.

"Interdisciplinary education" provides a potential means of breaking down the isolation among various health and education professionals and reducing this fragmentation of patient care. But interdisciplinary education, while stimulating considerable enthusiasm in principle, offers extensive challenges in implementation. In developing an interdisciplinary program a number of issues must be addressed. These issues essentially concern the organization of the program, the faculty, the curriculm, the students, and the final product. On top of these organizational and resource issues, accreditation may also loom as one specific barrier to implementation of interdisciplinary educational activities.

In July, 1983, the American Society of Allied Health Professionals (ASAHP) was awarded a three-year grant from the U.S. Department of Education to involve allied health professionals in efforts to develop a coordinated delivery system to meet the education and education-related health needs of children with handicapping conditions. ASAHP's grant project, titled "Training Alliances in Health Education," was designed to support the Society's "Advocacy Initiative for Persons with Disabilities."

The challenges of the Training Alliances in Health and Education Project (TAHE) has been to design an effective interdisciplinary personnel preparation model for allied health professionals, regular educators, and special educators that will encourage these professionals as service providers to continue to pursue collaborative efforts in the provision of education and health-related services to children with handicapping conditions. ASAHP believes this project has also served to improve communication and develop new and stronger alliances among professionals serving children with handicapping conditions.

In order to meet the project's objectives, three ASAHP member institutions of higher education have been participating as Professional Development and Dissemination (PRODD) Centers for the project: California State University-Fresno, Northern Illinois University, and Virginia Commonwealth University. Under the leadership of the Deans of Allied Health, and with the cooperation of the Schools/Programs of Teacher Education, Special Education, and Allied Health (with technical assistance provided by the ASAHP National Office), the PRODD Centers have been designing, implementing and disseminating model interdisciplinary curricula and training activities. These model programs integrate the "Generic Core Competencies" (See Appendix A) indentified as appropriate for all professionals serving youngsters with special needs—health and education alike.

Educators and administrators who have been in interdisciplinary program planning have found the following points to be at the heart of the decision-making process in designing effective interdisciplinary training activities: the establishment of well-defined, specific objectives and goals; organizational responsibility determined as early as possible; maintenance of attempts to obtain inputs and ideas from all sources; "compromise" as a key to planning content; and conflict resolution as essential to project stability. The variations in program structure and faculty control must be determined based on a combination of program objectives, location and activities; but interdisciplinary activity ultimately depends upon individual efforts, commitments, and relationships. It is through the exploration of differences that students can discover the unique combinations of other professions and how the professions can aid each other in delivering services.

In the following pages the authors present process, concept, and evaluation summaries on various aspects of their efforts at developing interdisciplinary training models and activities which have resulted from our project in "Training Alliances in Health and Education." At no point was it a goal of this project to propose a single model or strategy by which an educational institution can achieve the integration of collaborative relationships at the pre-service level among allied health professionals, regular educators, and special educators. Rather, our emphasis has been on defining the issues and developing approaches and combinations of approaches that can be utilized by other institutions in the pursuit of effective "interdisciplinary" training.

Beverly Brightly, Ed.D., is TAHE Project Director and Senior Research Associate at the American Society of Allied Health Professions, Washington, D.C.

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After Three Years of Effort — Wherein Lie the Successes?

JEANNINE RAYMOND

The evaluator's task involves objective sensitivity to the subtleties of human activities, sometimes referred to as looking for needles in haystacks. At the same time, one must be trained to look for the definition of the forest in spite of the obfuscating tree activity. Accomplishments that may seem of great import to the participants, may pale next to grander outcomes of which they were not aware because they were participants.

Now that this grant has ended, it is time to mull over the three years of activity and look for long-term successes. Browsing through the haystack of papers and looking past the laundry lists of immediate objectives (all checked off in the margin as having been accomplished), the long-term accomplishments need to be identified and discussed.

First, some background information: The Professional Dissemination and Development project (affectionately known as PRODD) underwent a significant change in leadership during its three years on this campus. With this change came, of course, a change in focus and a significant fluctuation in levels of participation of the two schools involved (i.e. the School of Education and the School of Health and Social Work). There has also been a wide variety of activities and outputs—from the production of printed materials and video tapes to campus/community symposia. Throughout these changes it has been the role of the evaluator to guide the activities so that they conform with the intent, as well as the letter, of the grant.

So, how does one define success? Aside from the obvious deliverables for which the management group is responsible, there is the underlying intention to change attitudes, and thereby, to affect a change in the way of doing business (i.e. training professionals in education and health). Thus, the more appropriate question is, have attitudes changed in three years? And if so, how? For the purpose of this exercise, we will consider the PRODD effort at California State University-Fresno successful if it can be shown that attitudes of the primary participants are different now than they were three years ago, or if they are in the process of changing.

The real goal of this project has been to bring two different schools together. More specifically, to bring two very different future professionals together while they are still in their respective training camps so that when they are out there on the job treating the same client they will communicate with each other more effectively and make use of each other's knowledge. The future professionals in this case are students in the Schools of Education, and Health and Social Work. The training camps are their respective classrooms, and the clients are the handicapped youths with whom they will be working.

Three years ago the faculty from the training camps "mingled," but they did not successfully cement a lasting relationship. The faculty came together briefly (for the first year and a half) and then parted company. This was partly due to the fact that before education and health can communicate with each other, the faculty and students within each school must communicate—that is, intra-communication must precede inter-communication.

The first indication of success has been the coming together of allied health on this campus. The faculty and the students are talking to each other. The official rubric of "allied health" is really not much more than that. It is a convenient label used for organizational and political purposes and makes no assumptions about collegial relationships in real life applications. On this campus it includes programs in physical therapy, health science, physical education, recreation, communicative disorders and nutrition, all of which are housed in different departments geographically isolated from each other and competing for resources from the same dean.

The PRODD grant provided a means for bringing the health faculty (and subsequently the students) together. In order to produce the deliverables, they had to work together. Thus, its first major success has been to convene allied health on this campus. Interestingly, this accomplishment has been transparent to many of the key participants. It is manifested in the formation of the on-going management team and the sharing of expertise within that group, mainly from the health fields.

In terms of our original definition of success, PRODD has been successful in changing the attitudes of at least half of the faculty involved—

the allied health faculty. The rudiments of collaborative training among health professions are beginning to show and will probably continue long after the funding has ended. **Some** attitudes have changed within the three years, and the changes can be measured by the types of future collaborative activities that have already been planned.

The exclusion of education may be a self-exclusion due in part to the perceived differences in their roles as professionals helping handicapped youths. During the second year of the grant, a survey of the faculty in the two schools yielded some interesting results: educators view themselves as advocates for the child (and parents) while health professionals view themselves as caregivers. Faculty responses indicated that there is no perceived overlap between these two roles. Thus, we are training students in these two disciplines to function as "mutually exclusive professionals" once they leave college. This finding alone was worth the three years of effort in PRODD.

The seond successful change (more in the attitudes of the students than the faculty) is that the students in allied health are now requesting the formal incorporation of collaborative training activities into the allied health curriculm. Their interest is the direct result of deliverables built into the original grant, but what that interest will achieve far surpasses even the most optimistic desires of the grant.

The inclusion of students in the planning stages brought with it a fresh level of enthusiasm that knowledgeable faculty can utilize to perpetuate a successful program. It was particularly beneficial to PRODD that the faculty member directing the activity for the third year was from the Recreation Program and, therefore, a specialist in organizing people. She was able to utilize the student labor force to its fullest while at the same time involving the students in a truly collaborative effort.

The net result was that the students had the opportunity to work with those from other disciplines and actively participate in "staging" teamwork exercises. Without boring the reader with the details of those exercises, suffice it to say that for the first time students in physical therapy, for example, learned what a recreation therapist actually does. And, more important, they want to learn more. There is an ignorance among students now being trained in the helping professions about the contributions that other professionals deliver to their clients. If they cannot learn to respect each other's knowledge while they are still in college, where will they learn?

Finally, there is a growing recognition among the health faculty that communication between educators and health professionals is essential to achieving the intentions of the original grant. Thus, the third success has been in instilling in the faculty a sense of responsibility for making that happen. For most for us, one's level of participation is directly proportional to the perceived personal benefits. The challenges in the future will be to create meaningful benefits for education faculty. Jointly, the two faculties (in Education and Health) must discuss the roles of advocate and care-giver that they both assume when out in the field with clients.

It is critical to recognize that the reference to "the two faculties" does not imply a grand joint school venture. This would be overly optimistic. Afterall, the faculty member most likely to care is the one teaching a key training class this semester. If that faculty member also happens to be the one who traditionally teaches the course, then effecting a change of attitude in that individual may also effect a change in the training curriculm in general, small as it may be. Thus, the success we are looking for may be nothing more than getting one or two faculty members in each school to include a new activity or exercise in class next semester, and on a continuing basis thereafter.

Effective community involvement also happens on a small scale. The contacts that are paying off as "long term" investments are those cultivated by individual faculty members through personal contacts. Simply putting a lot of faculty in the same room with agency people does not create, for example, interdisciplinary opportunities for students. However, if a few key agency people are included in the planning efforts of major departmental events, both sides begin to share formal and informal conversations and ideas. Collegial relationships blossom that ultimately bear fruit for the students. But again, the numbers of people involved are quite small.

In conclusion, it has taken essentially three years to identify interested faculty and create channels of communication among them and the community. Progress has been necessarily slow. The goal of bringing educators and health professionals together has not been the most significant accomplishment at this campus. The campus has succeeded in two important endeavors: 1) bringing the allied health disciplines together formally with the community; and 2) creating interdisciplinary training activities for students. The evaluator must be patient and look beyond the products for the real successes. Deliverables satisfy the letter of the grant; attitudinal changes satisfy the intent of the grant. The latter are far more difficult to achieve but far more satisfying to watch happen.

The extent to which planned efforts affect attitudinal changes is questionable. What started as a highly-structured effort three years ago ended with a more global approach and a successful mixture of personalities and expertise. When the goal of a project such as this is to open communication channels between two groups of people who previously had no contact with each other, it is important to select leaders who are good communicators themselves and can organize people. Within their expertise lies the potential for the most coveted successes.

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Accepting Territoriality in Pursuit of Interdisciplinary Training and Teamwork

HOWARD G. GARNER

Territoriality in Higher Education

Human beings are territorial. We value and defend what we perceive as ours. We protect our space against those who would intrude, and we defend our property against those who would steal. It is natural, therefore, for human beings who work in institutions of higher education to be territorial. In colleges and universities we are banded together into departments with our discipline colleagues. Here we cooperate in defending our respective, collective turfs, which include our degree programs, student credit hours, faculty positions, research funds, reputation in the community, status on campus, office space, personal computers, and copying machine.

The university community is a very competitive place where ideas vie for attention and funding. Professionals who share the same degrees, titles, and interests join together in pursuit of common values and goals. We are aware that we live in a world of limited resources and that, therefore, some will receive more than others. We look around the campus and compare what we have with those other departments. We compare our offices with theirs. We wonder what kind of salaries they make and are jealous when we learn theirs are higher. We discover that publications are counted and rewarded, and therefore, we make sure our names are included among the joint authors of any article that uses our ideas and research. We do not mean to be petty when we defend our self interests — we are just being human.

Students in the university learn from their professors. They observe and emulate the behavior of their mentors. How often do students observe their professors interacting with professionals from other helping disciplines? Do students see their professors sharing information, respecting each other's knowledge and skills, and delivering coordinated interdisciplinary services? In most universities they do not. In fact, we are so insular and isolated from one another that we do not even know the faculty members in disciplines other than our own. Many faculty members in social work have never been in the psychology building. Many professors of medicine have never been over to the School of Nursing. Some physical therapists have never been in the office of an occupational therapist. We do not visit each other's space unless we have a reason to do so. If we are asked to serve on a committee across campus, we will go. If a seminar is held on a topic of interest in another department, we might attend. But when the meeting is over, we gravitate back to our home turf, and there we stay until something draws us out again.

Territoriality is not unique to institutions of higher education. It also occurs among helping professionals who provide direct services to persons with disabilities. Territoriality is alive and well in our schools, hospitals, social service agencies, and residential facilities. These programs employ professionals in social work, education, allied health professions, nursing, medicine, and psychology who are trained to provide quality services to their clients, students, and patients. However, too often professionals in other departments seem to impede, rather than facilitate the helping process. Some professionals do not cooperate and communicate effectively with those from other disciplines. For example, diagnostic information is not always shared freely among the various disciplines. Each profession carefully guards its own reports and then advocates for specific treatment approaches based on their information. Given this, it is not surprising that different disciplines propose different and sometimes conflicting interventions. Role conflicts occur among professionals when services are being provided. As the conflict broadens each department or discipline defends its own perceptions, philosophies of care, roles, and responsibilities. It goes without saying that each department also defends its space, salaries, status, equipment, perogatives, and power. Territoriality is a fact of life in the helping professions and among the agencies providing therapy, social services, education, and health care.

Some Effects of Territoriality

Territoriality produces a number of outcomes that are detrimental to both the person receiving services and those who provide them. Unfortunately, the following list of outcomes is only exemplary and not complete.

1) Professionals spend valuable time and energy promoting the status, power, influence, resources, and control of their own departments.

They also waste time complaining to their departmental colleagues about the "turf building" of other departments.

2) Since the reasons for the existence of the helping disciplines and the jobs of helping professionals are the students, patients, and clients, they become the center of a struggle for "ownership of the program."

3) Clients receive a variety of services but in a sequence that decreases or impedes their effectiveness. This lack of coordination is confusing and frustrating to both clients and helping professionals.

4) Competing disciplines do not share their information completely with one another. This possessiveness often results in decision-making that is based on insufficient or inaccurate data.

5) Students are treated inconsistently. Each discipline applies its own treatment strategies based on its own perceptions of the client's needs.

6) Patients are used as pawns in the struggle among disciplines.

7) Clients often manipulate the helping professionals by playing one against another, leaving the helpers both divided and conquered.

8) Small problems and conflicts that inevitably occur when human beings interact are perceived in the light of the larger issues of departmental territoriality and competition. Thus, instead of resolving misunderstandings, hurt feelings, and uncoordinated interactions among staff at the level they occur, these problems are magnified. They take on great personal significance, are bucked upstairs for the administrators to handle, or are allowed to smoulder in resentment and repressed anger.

9) A number of personnel problems develop in the various departments that affect the receivers of services. These include staff turnover, lateness to work, absenteeism, rumors, backbiting, and distrust. These problems are seldom confronted by departmental peers who are directly affected.

10) Interdisciplinary conflict is emotionally draining for the professionals and produces discouragement and low morale, which are often perceived by students, patients, and clients as indifference to their needs.

It is clear from this list that territoriality is a serious problem among helping professionals. It is a barrier to interdisciplinary training in our universities that is needed to achieve interdisciplinary teamwork in the delivery of services. It is a problem worth attacking — it is also a problem that is very resistant to change.

Accepting and Using Territoriality in Interdisciplinary Training

As noted in the discussion above, the structure and reward system of the university encourages faculty and students to emphasize that which is unique and special about their own respective professions. Interdisciplinary training requires that we discover what we share in common and that we understand and value the expertise and skills of each other's disciplines. The departmentalized university divides and separates the helping disciplines: interdisciplinary training attempts to overcome traditional territorial barriers and to prepare the trainees to work together as an interdisciplinary team.

Territoriality is a powerful force in human life that can divide us when we are competing or unite us when we share joint ownership. The success of interdisciplinary training is, therefore, dependent on faculty members from the participating disciplines feeling joint ownership of the interdisciplinary training project. When this happens, the faculty members are joined together in a unit that transcends their various departments and schools.

The PRODD Project at Virginia Commonwealth University (1983-86) succeeded when the faculty who participated in its training and service activities shared joint ownership. The PRODD Project did not succeed when faculty viewed the interdisciplinary effort as belonging to the School of Allied Health Professions or the School of Education or to a subgroup. Ownership and territoriality are the keys.

Faculty members came together because of shared concerns that our students were not being properly prepared to work with professionals from other disciplines. We knew that persons with disabilities require services from a variety of professionals and agencies and that interdisciplinary teamwork is essential to quality care. We also knew that teamwork skills are learned and that we are obligated to teach them. The PRODD Project tapped a wellspring of professional concern and good will. But more than that, the project became an entity — something one could belong to and co-own. In a subtle way the activities of the PRODD Project became, for some, a new territory.

Ownership Breeds Participation

Ownership was developed through a participatory planning process. Three task forces were formed in the areas of interdisciplinary activities, student exchange, and faculty and community resources. The **Interdisciplinary Activities Committee** met over a period of time and planned a series of interdisciplinary seminars. The faculty who helped plan the seminars were the primary presenters. They also recruited the students who attended and participated in the series. The **Student Exchange Committee** brought together students from various helping disciplines with two faculty members — one from our Medical Campus and one from our Academic Campus (two territories). This committee planned and sponsored a Student Symposium. This event was well-attended and highly evaluated. The **Resource Committee** developed a resource guide that describes the services available for persons with disability in Virginia and lists faculty who are willing to serve as resources for other disciplines.

It was interesting to observe the degree to which participation in the planning process of these three committees affected the sense of ownership by the various committee members. These three task forces functioned relatively independently of one another. The scheduling of the Student Symposium and the Seminar Series was coordinated by the PRODD Executive Committee. The two activities were planned to complement each other. The Symposium was scheduled in the early fall and was to include a large number of students. The plan was for students who participated in the Symposium to become the nucleus of the Seminar Series which was to follow in late fall. In addition to this coordination of schedule and general objectives, the Executive Committee assured that the content of the two activities would not be duplicated. The Symposium Series focused on the roles and responsibilities of the various helping professionals while the Seminar Series dealt with issues involving teamwork and services to the whole person and the family.

With these general guidelines, the task forces operated independently and planned their respective activities and products. Each member of each committee came with his or her own ideas about interdisciplinary training. People needed an opportunity to express their values, concerns, and philosophies. Progress was slow, and several meetings were required for the participants to see themselves as a group. Some members missed a meeting or two and then never returned. Apparently, they did not feel a part of the group and did not become bonded to the task. Others were regular in their attendance and saw themselves and others as invested and committed. As the plan for the activities of each task force began to take shape the committee members began using collective pronouns — referring to "our symposium," "our seminar series," and "our resource guide." The planning process developed a sense of collective ownership of a shared territory.

It was interesting to note how this sense of ownership affected the attendance of the faculty members in the various PRODD activities. Generally, the faculty members attended the PRODD activities they helped to plan and not those planned by others. In addition, faculty members attended those activities when they had a specific role to play or task to complete. In spite of our commitment to the goals of the PRODD project and of our expressed support of each other's efforts, when the actual events took place each task force's faculty members participated in their own activities. There may have been one or two exceptions to this, but the behavior pattern was clear. Faculty participated in those interdisciplinary activities in which they felt personal investment and ownership.

Interdisciplinary Achievements and Territorial Issues

The PRODD Project accomplished a great deal. It brought faculty and students together and established professional relationships and personal friendships that will continue. The PRODD Project helped establish the interdisciplinary climate in which a University Affiliated Program in developmental disabilities could be formed. Many faculty who worked in PRODD now participate in the Virginia Institute for Developmental Disabilities. Change does occur in higher education, but it happens very slowly. One primary reason for the stability of the university and its resistance to change is the territorial lines that exist between the various colleges, schools, and departments. Every change threatens someone's turf; therefore, it is essential to plan interdisciplinary training activities that enhance rather than threaten the existing structure.

One example of this effort is an interdisciplinary course that is being planned by Virginia Commonwealth University. The course is being developed by an interdisciplinary committee of the Virginia Institute for Developmental Disabilities. Nine disciplines are participating in the planning process. The committee is making progress, and we hope to offer the course next spring. This planning process has been successful for a number of reasons: shared values, professional commitment, and investment in providing interdisciplinary services to persons with disability. These are all very important. However, in order for the planning for the interdisciplinary effort to proceed, some significant territorial questions had to be answered.

The questions that the committee faced early in its discussions were these: 1) Who will own the course? 2) When students sign up for a course called "Interdisciplinary Teamwork in Programs Serving Persons with Developmental Disabilities," will they register for a social work course or an education course or an allied health course? 3) Which department will gain the student credit hours? and 4) Will any discipline ever require their students to take a three-hour course in another department? As we asked these questions together, we realized that serious territorial issues were being raised. We recognized that the viability of this course was depenent upon answers to these questions that all disciplines could accept, and we found our answers.

First, we discovered that our university has in the past offered courses with the prefix **UNV** indicating a "university" course. This seemed to be a prefix that all participating disciplines could accept. We considered UNV 600 as an appropriate listing of an interdisciplinary course for graduate students. Then, we consulted the Director of Enrollment Services and discovered it is possible in such a course to credit the student hours back to the department of the student's major. This administrative procedure will reward the departments that encourage or require students to enroll in the course. This will also allow faculty and students to participate in a formal interdisciplinary training activity without having to sacrifice the vested interests of their home department. The resolution of this territorial issue opened the door for the faculty members planning this course to engage the issues regarding the substantive content of the course. It also allowed them to feel they shared the ownership of the course. In this case we accepted territoriality as a given and as a reality. By accepting it, we hope to use it as a means of encouraging students from all helping disciplines to take at least one course together that teaches how to achieve true interdisciplinary teamwork in services to persons with disabilities.

In Conclusion

Territoriality is an important and powerful human behavior that cannot be ignored by those who advocate interdisciplinary training and teamwork. When human beings have ownership of an idea, a program, or thing, they will actively promote and defend their collective interests. These territorial behaviors occur in schools, hospitals, and agencies serving persons with disability. Frequently, in these settings students, clients, and patients receive inconsistent and uncoordinated services because interdisciplinary teamwork does not occur.

The absence of teamwork among direct-service professionals mirrors their educational experiences in our universities. Helping professionals in the university community need to understand and accept their territorial instincts. Moreover, territoriality must be accepted and used in the pursuit of interdisciplinary training and teamwork. The participants in these efforts must be allowed to experience ownership of the interdisciplinary training, the courses, and the students. This is difficult to achieve since the university is structured and organized into divided disciplines and departments; however, it is possible with adequate time for participatory decision-making and creative distribution of the rewards, such as student credit hours. Interdisciplinary team work is essential to the provision of quality services to persons with disability. Those of us in higher education are obligated to teach our students to work with professionals from other disciplines. We are also obligated to model interdisciplinary teamwork by engaging in activities in which we share ownership of the interdisciplinary territory.

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Interdisciplinary Awareness and Barriers to Collaboration

JAMES M. CAMPBELL

Training Alliances in Health and Education (TAHE) project sites, known as Professional Development and Dissemination (PRODD) Centers, were established in California, Illinois, and Virginia in 1983 by the American Society of Allied Health Professions (ASAHP) under a grant from the U.S. Department of Education. The challenge to the directors of these Centers was to devise, develop and utilize methods for implementing interdisciplinary awareness and collaboration among programs and departments training professionals who work with children with handicapping conditions. These methods were to be suitable for, or tailored to, the existing situation on each campus.

After three years of Center operation, it is now apparent that the strategies and methods which were developed on the three campuses are essentially quite similar. This is in part due to the original charge given the Centers by the Project Director which wisely contained built-in methods for collaboration, such as mandating a management team. There was also some cross-pollination through exchange of ideas at regular meetings of PRODD Center personnel held in conjuction with the Annual Conferences of the American Society of Allied Health Professions.

The first step toward interdisciplinary collaboration at each PRODD Center was the establishment of a management team composed of representatives of various professional fields concerned. At Northern Illinois University, for example, the Team included students and faculty members from several programs in three colleges: special education, nursing, physical therapy, communicative disorders, adapted physical education, allied early childhood education, elementary education, secondary education, art, music and library science. These interested professionals began by assessing the situation on the DeKalb campus, delineating needs and setting goals for the project.

STRATEGIES

At Northern Illinois University (NIU) a project was initiated to assess the extent of emphasis by faculty on a set of "Generic Core Competencies" (See Appendix A), which had been developed at an interdisciplinary planning conference for Management Teams from each PRODD Center. These competencies, in addition to professional and communication skills, included advocacy, legal and regulatory issues, networking skills, and societal and professional attitudes (see Kimball article, this publication).

The survey instrument which was developed included fifty-nine items and was distributed to all faculty members who were identified by the team as teaching material related in any way to working with individuals with handicapping conditions.

The process of responding to the survey was in itself a tool for promoting awareness. Respondents who were not previously teaching material relating to the competencies would, it as hoped, seriously consider adding such material to their course syllabi.

Graduates of some of these NIU programs were also surveyed concerning the same competencies and their answers compared with faculty responses. The graduates' perceptions of their training in the competencies disagreed with the faculty views in some cases. The differences provided a springboard for discussion and self-examination. A similar survey of faculty was conducted by the California State University-Fresno PRODD Center.

The results of the NIU survey were taken to the various program or departmental faculties by the project staff during regular faculty meetings. The discussion which followed these brief presentations again served to stimulate awareness of the need for more attention to the competencies. Further, it created awareness among those who had not participated in the survey and seemed to heighten a sense of need for interdisciplinary cooperation. At these meetings the doors were opened for future interactions among the various faculties.

Other successful strategies for developing awareness and collaboration on the Northern Illinois University campus included participation in a community-wide Disability Awareness Week, which received considerable publicity and attention. Activities included films, lectures, demonstrations, displays and a proclamation by the mayor. The campus classical music FM station broadcast music by composers with handicapping conditons. Free hearing testing was available, and several high-level administrators attracted much attention by spending a day operating under some imposed handicap. One official in a wheelchair found out how inaccessible some of the campus facilities are to a physically-handicapped person. A special recognition award was presented to the Illinois Attorney General for his attention to the problems of the handicapped.

Conferences were planned and held by all three PRODD Centers. These conferences heightened awareness and focused attention on the need for interdisciplinary collaboration. Conferences at Virginia Commonwealth University and the University of California at Fresno included faculty and students as well as campus and community resources. Two conferences held at Northern Illinois University were developed for a campus audience of faculty and students.

The first NIU conference targeted an invited audience of faculty from several participating disciplines. Also invited were potential project advocates such as departmental and college curriculm committee members, administrators and others regularly involved in making institutional changes. The stated aim was to discuss the surveyed competencies and to suggest ways to implement the teaching of these competencies. Keynote speakers set the tone for the discussion by emphasizing the need for collaboration. A panel discussion included a parent, an educator, a service provider, and a national executive formerly with the U.S. Department of Education. These perspectives provided the proper stimulation for exciting small group discussions which produced some excellent recommendations for implementing the goals of the PRODD Center.

The second NIU conference, growing out of suggestions provided by participants in the first conference, looked at the various service professions and clinical facilities represented on campus. The goal of the Management Team was to make information about each discipline available to students (and faculty) of other disciplines. The Team was particularly interested in exploring with conference participants the role of the various campus clinics both in teaching and providing service. Understanding was developed regarding networking and possibilites for interdisciplinary observation, participation, and interaction.

Student speakers from several campus professional programs presented brief overviews of their fields. This was followed by a presentation by each of the clinics. A panel of clinic directors outlined their missions and discussed opportunities for students to develop interdisciplinary awareness through networking. Clinics represented were Speech and Hearing, Child Development, Counseling, Adapted Physical

Education, Marriage and Family Therapy, Physical Therapy and the Learning Research Center. A panel discussion by several faculty members from various disciplines explored means for implementing interdisciplinary collaboration in the curriculum. The conference was attended by faculty and students and was so well received that it is anticipated to be an annual event.

Other means for implementing the PRODD Centers' goals were considered by the Management Teams at the three Centers. The following represents a few of the ideas selected for implementation: a list of suggested elective courses for students in professional programs was provided to advisors and students; a list of audio-visual resources was developed; a brochure describing the clinics and their services was distributed; a national computer information service was made available to programs participating in the project; a directory of community resources was complied. All of these served to enhance faculty and student awareness and encourage interdisciplinary collaboration.

Both the University of California-Fresno and Virginia Commonwealth University PRODD Centers produced attractive, highly readable newsletters which were circulated to campus constituencies. They also received wide circulation among local and regional agencies and service providers.

Techniques developed for interdisciplinary cooperation were shared with education and health professionals through formal presentations made by the three PRODD Centers at national conferences in Hartford, Atlanta, Chicago, and Dallas. Further dissemination is planned through state and Regional meetings involving other universities, including the participation by Northern Illinois University at Ohio State University, the University of Wisconsin at Milwaukee, and the University of Illinois of Chicago.

BARRIERS

Barriers to accomplishing the aims of the project were recognized by the Management Teams at the outset. Faculty and administrative attitudes on the campus were at first seen as a barrier by some, but in general were more feared than real.

More substantial barriers were connected with time constraints, for students as well as for faculty members. Professional programs have been planned to satisfy professional society, board or certification requirements, and very little time is left for electives which might give students some of the competencies not included in these programs. For example, there is so much material to be covered in the undergraduate professional program in Physical Therapy that there is little or no time for learning units or modules to be inserted in existing courses. A separate elective course is even less possible. Some understanding of the competencies can be made available to students in this situation through carefully planned availability of extracurricular activities and events.

Some of the barriers which the PRODD Centers have begun to address are lack of communications among faculty in various professional programs, lack of specific projects to bring these professionals together, lack of updated directory information and networking, and lack of knowledge about their professions. These deficiences have been addressed by each of the Centers with gratifying results.

Faculty resistance to learning new skills was perceived as a barrier initially. This was not the real issue, however. The problem is that faculty members often feel they have a real understanding and awareness of the problems, and with busy schedules they no not wish to take time for meetings to review these already understood basics. Once this attitude is turned around and they perceive a real need, faculty members are quick to respond to new information and skills.

The question of territoriality is always an issue to some degree. Participants in PRODD-type projects must be sensitive to the possibility of barriers being erected to protect a perceived threat to the turf of any program or professional group. Related items which must be carefully considered are professional conventions and customs, restricting boundaries and rigidities.

SUMMARY

The experience of the PRODD Centers during three years of programmatic development has demonstrated that carefully planned interdisciplinary activities can provide a vehicle for awareness and collaboration resulting in a broader frame of reference for both students and faculty. If barriers to such understanding are recognized, they can often be surmounted. This writer believes that the PRODD format for addressing these barriers is one which could be adopted successfully by any campus. The results would be to the decided advantage of all health and educational professionals and, most particularly, for the ultimate benefit of persons with special needs whom they serve.

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Generic Core Competencies: An Assessment of University Curriculum In Health and Education Programs

OLIVE M. KIMBALL

Introduction

Since the overall objective of the PRODD Project was to improve the quality of educational programs preparing health and education personnel to serve youngsters with handicapping conditions, it was appropriate to initiate Project activities by first determining the status of academic programs in relationship to expected program outcomes. In an effort to come to agreement on outcomes common to a variety of programs, a panel of national leaders in allied health education as well as leaders in regular and special education met in Philadelphia in 1983 to determine which areas of expertise, regardless of major, should be expected of all graduates who would work with children with handicapping conditions. The national panel, building upon prior work related to roles and responsibilitis of health professionals (Bashir, 1983), eventually agreed upon a list of 58 competencies and judged them to be essential for graduates of all the educational programs. Competencies fell into six clusters of related items:

I. Legal Roles and Regulatory Issues
II. Societal and Professional Attitudes
III. Professional Practice: General
IV. Professional Practice: Coordination
V. Professional Practice: Advocacy
VI. Communication

A complete listing of these competencies, the Generic Core Competencies, with all included subcompetencies may be seen in Appendix A. At Northern Illinois University (NIU) it was decided to determine the extent to which these competencies were addressed in several academic programs.

With the cooperation of the PRODD Management Team, the assessment of seven programs was initiated. To obtain the necessary information, the six clusters of competencies were used to construct a questionnaire. Two separate questionnaires were designed, one for faculty and one for program graduates (see Appendix B). To facilitate administration of the survey instrument to faculty, a subcommittee of the Management Team was designated. Members of the subcommittee were representative of the programs chosen for assessment and came from Special Education, Elementary Education, Adaptive Physical Education, Nursing, Physical Therapy, Speech Pathology/Audiology, and Child Development. Surveys were distributed by the program representatives, and these individuals had responsibility for collection of completed surveys, for general information dissemination about the Project, and for overall encouragement of participation by faculty. The survey of program graduates was conducted by mail.

Faculty Survey

Survey forms were delivered individually to faculty, a separate form for each course taught. Courses assessed were within the major of the academic department and required for completion of the entry level degree. For two programs, entry level was the master's degree, but for all others it was the baccalaureate degree. A total of 100 responses represented an overall 57% return rate.

PROGRAMS ASSESSED FOR CORE COMPETENCIES

Program	Abbreviation	Level
Special Education	(SPED)	undergraduate
Elementary Education	(ELED)	undergraduate
Adaptive Physical Education	(P.E.)	graduate
Nursing	(NURS)	undergraduate
Physical Therapy	(P.T.)	undergraduate
Speech Pathology/Audiology	(SP/A)	graduate
Child Development	(C.D.)	undergraduate

Results of the faculty survey indicated that, when all programs were combined, the competency emphasized most was **Societal and Professional Attitudes** (emphasized in 74% of courses assessed). The next highest emphasis was **Professional Practice: General** (61%) and the next was **Communication** (57%). Least emphasized among the competencies was **Advocacy** (39%). These results are reflected in Table 1 where all programs combined are shown in the **All** column, and Competency II is ranked the highest, having received the greatest emphasis. Competency V is ranked the lowest because it was emphasized least. Although there were some differences in emphasis across programs, the general pattern found in **All** held for separate programs.

In the discussion of survey results, rankings given for the six competency clusters are based on means of all individual responses to sub-competencies after scaling responses from 0 (no emphasis) to 5 (most emphasis). The mean level of competency emphasis was determined by program. Data for each individual sub-competency is also available but is not broken out for purposes of this paper.

TABLE 1

Faculty Survey
RANKING OF EMPHASIS

(1 = Highest Emphasis, 6 = Lowest Emphasis)

COMPETENCY	PROGRAM						
	ALL	ELED	SPED	SP/A	PT	NURS	C.D.
I Legal Roles and Regulatory Issues	4	4	3	4	5	2	4
II Societal & Professional Attitudes	1	1	2	3	1	1	1
III Professional Practice: General	2	2	1	1	2	4	3
IV Professional Practice: Coordination	5	5	5	5	4	6	6
V Professional Practice: Advocacy	6	6	6	6	6	5	5
VI Communication	3	3	4	2	3	3	2

The differences in emphasis by program are presented in Table 1. It can be seen that the **Advocacy** competency was given the lowest emphasis by most programs, that is a 6, with the exception of Nursing and Child Development, where it ranked fifth. **Coordination** was next lowest with the Physical Therapy rank of 4 in contrast to the 6 shown for Nursing and Child Development. Across the board, **Societal and Professional Attitudes** ranked high. The same was true of **Professional Practice: General**, except for Nursing where it was ranked 4.

The extent to which a faculty member made an effort to evaluate competencies was assumed to be related to that individual's commitment to the need for the competency. For that reason, the survey instrument also asked about the extent to which evaluation took place. This was done to determine if content emphasis differed substantially from content evaluation. The rankings were actually similar, as seen in Table 2, but all competencies were evaluated much less than they were emphasized.

TABLE 2

Faculty Survey
RANKING OF EVALUATION

(1 = Highest Emphasis, 6 = Lowest Emphasis)

COMPETENCY	PROGRAM						
	ALL	ELED	SPED	SP/A	P.T.	NURS	C.D.
I Legal Roles and Regulatory Issues	4	3	2	4	3	2	5
II Societal & Professional Attitudes	1	1	1	3	4	1	1
III Professional Practice: General	2	4	3	2	1	3	3
IV Professional Practice: Coordination	5	5	5	5	6	6	6
V Professional Practice: Advocacy	6	6	6	6	5	5	4
VI Communication	3	2	4	1	2	4	2

Although the extent to which evaluation took place was much less than the extent to which competencies were emphasized within courses, this was not entirely unexpected given the difficulties attendant to evaluation in more subjective content areas. The actual rankings for evaluation matched closely the rankings for emphasis. For example, in Table 1 the competency emphasized most was **Societal and Professional Attitudes**, and therefore, except for Special Education and Speech Pathology/ Audiology, was ranked highest. The proportion of faculty evaluating the competency, however, was considerably lower than the proportion emphasizing it. While 78% of Nursing faculty gave emphasis to Competency II, only 47% of faculty indicated they actually evaluated that competency. Still, in Table 2 it was ranked by most programs, including Nursing, as 1.

Graduate Survey

The second focus of the study was directed toward graduates of academic programs. A random sample of graduates from five programs was surveyed. Names were selected from a pool in the work force and represented those who had been there at least one year but not more than two years. They were asked to estimate the extent to which their academic program had prepared them to exhibit the competencies and if, in fact, they had had the opportunity to exhibit them. Forty-eight responses represented a return rate of 53%.

Results of the graduate survey showed that there was some correspondence between how well graduates believed they were prepared and the extent to which faculty emphasized competencies. However, in some cases, graduates indicated they had not used some competencies which were emphasized and in others indicated they were not well prepared.

It was preceived by graduates that there was much emphasis on competencies II, III, and VI: **Professional Practice: General, Communication,** and **Societal and Professional Attitudes**. There was correspondingly less emphasis on competencies I, IV and V: **Advocacy, Coordination,** and **Legal and Regulatory Issues**. Overall, in several areas the preparation as perceived by graduates was found to correspond to the emphasis as perceived by faculty. The exceptions will be addressed statistically in Section 5.

Revising the Competency Clusters

Despite the unique utility of the instruments as described above, it was of some concern that items which conceptually appeared to measure a competency might not actually do so and that perhaps items forming the composite measure might be indicators of multiple dimensions. The process of this analysis was reported in an earlier paper (Kimball et al. 1986). Examination of loadings within each competency resulted in a readjustment into eight, rather than six major competencies. For example, two of the items formerly placed in Competency I, **Legal and Regulatory Issues**, clustered together with the majority of items from III, **Professional Practice: General**. The new group was termed **General Practice** or Competency 1. The rest of the items in Competency I fell into a category related to education and interacting with parents and families and was labeled **Parent Interaction**. Similar readjustments occurred throughout the list of competencies. Table 3 shows the new configuration of competencies and the resulting ranking of emphasis.

TABLE 3

Faculty Survey
RANKING OF EMPHASIS

(1 = Highest Emphasis, 8 = Lowest Emphasis)

COMPETENCY	PROGRAM							
	ALL	SP/A	P.T.	NURS	SPED	ELED	P.E.	C.D.
1. General Practice	3	5	2	2	1	5	5	3
2. Parent Interactions	6	4	5	6	6	3	7	5
3. Societal/Professional Attitudes	2	1	1	3	4	2	4	4
4. Continuing Professional Development	4	3	6	5	5	6	2	2
5. Networking	5	6	4	4	3	4	6	6
6. Advocacy	7	8	8	8	8	7	1	8
7. Communication	1	2	3	1	2	1	3	1
8. Scholarly Activity	8	7	7	7	7	8	8	7

Again, the Competency **Societal/Professional Attitudes** ranked high, although now not as high as **Communication**, which was ranked highest (emphasized most) by the majority of programs.

As in the original configuration of competencies, the construct known as **Advocacy** was ranked near the bottom, the new construct being comprised of the entire original **Advocacy** construct plus several items from **Coordination** which were closely related. A group of items related to research and publishing, and now labeled as **Scholarly Activity**, comprised the only competency to rank below **Advocacy**.

Comparison of Faculty Emphasis with Graduates' Perceptions

To test how faculty perception of emphasis related to the graduates' perception of their academic preparation for the work place, a comparison of mean levels of ranking for both faculty and graduates was done. There were significant differences when a test for two independent samples with unknown population variances was used. Results of that testing are seen in Table 4. Child Development and Adaptive Physical Education graduates were not included in the survey and hence there are no figures for them.

TABLE 4

COMPARISON OF MEAN LEVEL OF IMPORTANCE
(Faculty and Graduates)

COMPETENCY	PROGRAM				
	SP/A	P.T.	NURS	SPED	ELED
1. Professional Practice	.01*		.05	.05	
2. Parent Interactions			.01		
3. Societal/Professional Attitudes		.05	.01		
4. Continuing Professional Development	.05		.05		.05
5. Networking	.01				
6. Advocacy	.05		.01		.05
7. Communication	.01				
8. Scholarly Activity	.01		.05		

*Significant difference in perception of faculty and graduates regarding preparation for specific competencies.

Significance at the .01 level and beyond was found in **Professional Practice** for the Speech Pathology/Audiology program. Faculty and graduates disagreed about the preparation in that competency as in the others shown. The SP/A graduates reported a mean level of importance much lower than the emphasis indicated by faculty in all cases. In Nursing, significant differences at the .01 level were found in **Parent Interactions** as well as in **Societal/Professional Attitudes** and **Advocacy**. Again, the emphasis indicated by faculty was much higher than the preparation indicated by graduates. In Elementary Education there was only one area of disagreement at this level **(Professional Development)**, and in Physical Therapy and Special Education, there were none.

Table 4 shows several other differences at the .05 level as well. In all cases but one, the graduates' perception of extent of preparation was considerably less than the faculty perception of emphasis. In the case of Physical Therapy, data for **Societal/Professional Attitudes** showed that the graduates rated preparation to be much higher than faculty rated the emphasis—that is, faculty indicated that they did not emphasize this competency to any great extent, but graduates believed they had been well prepared to exhibit this competency.

It appears from this data that in Nursing and Speech Pathology/Audiology there is limited correspondence between what faculty say they are emphasizing and what graduates believe they were prepared to do, while in the other programs there is considerably more correspondence.

Meetings with Program Faculty

The original competencies had been agreed upon by a variety of professionals and had been based upon a prior project which was national in scope (Bashir, 1983). Based on these competencies, the survey instruments provided valuable information about competency emphasis by program. However, considerable additional utility resulted when both the surveys and the data were used as communication devices to engage faculty in the planning for curricular change. The next step toward curricular change, beyond data collection and analysis, included the setting up of a series of meetings with program faculty, some of whom had completed the surveys and some of whom had not. Project staff met with faculty from the academic programs in regularly scheduled faculty meetings and shared with them results of the survey. Discussion also took place regarding the role of these competencies in their programs.

Interactions with faculty in this manner confirmed both the convenience and usefulness of the survey as a communication device. In fact, it

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was found that the instrument itself, and the very act of completing it on the part of individual faculty, fostered identification with the competencies. These activities increased faculty awareness of the competencies and willingness to consider curricular modifications based upon them. It became apparent that the identification and awareness led to improved sensitivity toward other programs and faculty. This eventually culminated in initiatives to collaborate with programs in other colleges in an effort to share the teaching of the Generic Core Competencies.

Discussion

The purpose of the assessment of core competencies in the participating academic programs was to determine the status of program content and outcomes. Status assessment was done through input from faculty and graduates. Using the revised configuration of core competencies, it was clear that **Communication**, Competency 7, was the most emphasized. It is well documented that a health or education professional's competence as a communicator, whether in consultation, negotiation, assessment, or persuasive presentations (to name a few) is a significant role in service delivery (Del Polito, 1983). Therefore, it is not surprising that this competency is stressed in all programs and is usually well evaluated. Graduates appear to perceive that it is well emphasized, with the exception of graduates of Speech Pathology/Audiology, who believe they were not well preapred to exhibit the competency.

Social/Professional Attitudes was also emphasized highly by almost all programs. This competency relates to recognition and acceptance of needs and rights of disabled youngsters, as well as the fostering of self-acceptance on the part of the children. This cluster of competencies was well evaluated also, and with the exception of Nursing and Physical Therapy, graduates agreed that they were well prepared to exhibit this. In Physical Therapy, graduates felt they **were** well prepared despite a low emphasis on the part of faculty.

Least emphasized of all competencies was **Scholarly Activity**. This was a small cluster of sub-competencies and only Speech Pathology/Audiology gave it much emphasis. Even in this program it was not evaluated to any great extent, and graduates indicated that they were not prepared for its use. Nursing graduates also believed that preparation was not sufficient. The fact that Speech Pathology/Audiology is a graduate level program may make this result more understandable. The level of emphasis may reflect a faculty commitment to be involved in scholarly pursuits because of the accepted philosophy that Master's level programs should foster these competencies in students. Meanwhile, the actual role-modeling by faculty may have far exceeded the skills learned and the opportunity to practice them. It is likely that higher use of this competency and feeling of confidence in such skills would be found in graduates working longer than two years, as well as in professions encouraging such competency through continuing education credit.

The other cluster of competencies not well emphasized was **Advocacy**. Advocacy is a pragmatic activity and is closely related to ethical behavior. Further, an advocate for children with handicapping conditions must use various resources depending upon the strategies employed to cope with the problem and the resources known to the advocate. Resources include laws and regulations, attorneys and legal services, plus networks of advocates. Several principles of effective advocacy have been delineated, which include: 1) finding out how decisions are made and who makes them; 2) finding out as much as possible about decision-makers and what political trade-offs they may be interested in; 3) treating each advocacy effort as a unique event; and 4) involving parents (Ellis, 1933). Content in this area extends over an entire academic program and is not limited to one course or two. An advocate assumes a role, an on-going philosophy which must be developed over time in the health or education professional. This competency was emphasized by only 39% of the faculty. Graduates of programs in Speech Pathology/Audiology, Nursing, and Elementary Education indicated it was used, but their programs did not prepare them adequately for it.

Conclusions

It may be reasoned that there are three areas of general strength across programs assessed at NIU. **Communication** is well emphasized as is the cluster of competencies related to recognizing and accepting the needs and rights of the disabled child, and understanding the influence of cultural differences on treatment plans — that is, **Societal and Professional Attitudes**. Further, there is considerable emphasis on the provision of services for which the graduate is trained, and the provision of assessment and screening programs as described in **Professional Practice**.

Even in these competencies, however, graduates in many programs do not perceive that they are well prepared. The reason for this is not easy to address. First, the graduate survey, for several valid reasons, obtained information from graduates who had been in the work force for a maximum of two years. It may be that it is too early in professional careers for them to have established sufficient self-confidence in their own capabilities and hence believe that they were not sufficiently prepared by the academic program. Plans are underway to continue the monitoring of graduates' perceptions, especially those in the work force for a longer time.

Second, the programs where there were the fewest discrepancies between faculty and graduates' perceptions were Physical Therapy and Special Education. Each of these programs has a relatively structured curriculum with very high credit hour requirements. Consequently, the highest priority content areas must be met first in order to keep the programs within a four-year limit for baccalaureate degrees. This is reflected in the significant difference for Competency 3, **Societal and Professional** attitudes, in Table 4 for Physical Therapy. Faculty provided more emphasis than they needed to as far as students were concerned, even though faculty assigned it a lower priority overall. The ranking of this by Physical Therapy in Table 2 supports this conclusion.

Further, these two programs educate professionals to deal with fairly specific audiences. While Physical Therapy and Special Education programs are founded in the sciences and social sciences, as are the others, on a continuum when limits are defined by a "conceptual knowledge base" at one end and a "task oriented knowledge base" at the other, these two programs fall toward the latter end.

The programs in Elementary Education and, to a lesser degree, Speech Pathology/Audiology and Nursing, are oriented more toward the conceptual base, and graduates provide services with a somewhat broader focus. Although graduates have specific skills which they bring to bear on clients, patients or students, their professions have a potential broadness of scope which educational programs foster naturally in the higher education environment, especially at the graduate level. In all three cases they are majors requiring fewer credit hours than the Physical Therapy or Special Education program or, as in the case of the graduate program, are able to extend the hours out over time. Graduates, therefore, may have an opportunity to develop their own work parameters or "nitches" more often than in Physical Therapy or Special Education and consequently may perceive that, for specific cases in which they were required to serve in their first year or two, they were less prescriptively prepared.

Another possible rationale for discrepencies in perception is that graduates are out in the practice settings and now know what it is they need for adequate preparation. They may acuse faculty of being off in their academic institutions theorizing about what it is they should expect of students. This is an age-old argument related to theory and practice and the natural conclusion is that there is truth in both perceptions.

It is the responsibility of faculty to keep abreast of current changes in professions and needs in professional preparation. They can be kept informed not only by their own scholarly activity but through the practice of graduates in the field, as well as clinically-based staff who work with programs. It is the responsibility of graduates, now recognized as professionals in the work place, to influence the development of their professions through participation in professional associations. These associations in turn influence requirements for practice. In addition, however, faculty must carefully and regularly monitor their expectations of students and continually evaluate their courses and programs for needed competencies. Consideration of results of assessments such as the one conducted by the PRODD project can be an important first step.

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Securing Faculty Commitment

JENNIE D. SEATON

In the early stages of the development of the Professional Development and Dissemination (PRODD) Project at Virginia Commonwealth University (VCU), the Deans of the Schools of Allied Health Professions (SAHP) and Education (SE) agreed that the success of the project would be dependent upon the selection of appropriate faculty members who would be willing to assume active, participatory roles. Although the identification of these individuals was a prime concern, incentives to insure a high level and continued involvement were also a consideration. In the preparation of the budget, honoraria for those agreeing to assume leadership roles were included.

Prior to attending the orientation sessions in Philadelphia in November, 1983, the group, which later became indentified as the Executive Committee of the PRODD Project Management Team, met. The membership included the Deans of the two Schools, an Associate Professor from the Department of Physical Therapy (SAHP), an Associate Professor of Special Education (SE) and the Coordinator for Allied Health Education (SAHP). The two Deans were acquainted with one another, and the individuals from each of the Schools knew each other. It is well to note here that the Academic and the Medical Colleges of the VCU campus are geographically separated by four miles through a dense, downtown, business district. (The members from the School of Education arrived at the first meeting late because they went to the wrong location for the Office of the Dean (SAHP) - it had been relocated for more than four years!)

As the group discussed their different perspectives on the purposes of the Project, as well as the various strategies for attaining the specified goals, it became obvious that we were not "interdisciplinary" in our concepts of the issues or strategies. The universal knowledge of programs offered through the two Schools was very limited. It also became apparent that there was little awareness of Virginia's response to national legislation as it relates to individuals with disabilities and to their families.

At the Management Team Conference in Philadelphia, the formal sessions and informal socialization enabled the group to become more cohesive. In the discussion, it appeared that attempting to indentify "core competencies" would indeed be a difficult and time-consuming task. It was generally agreed among the VCU group that because of the geographic separation, as well as other territorial barriers, our efforts should be directed to gaining administrative sanction for faculty participation, as well as for any activities/products which would be developed by the PRODD Project. In order to assure gaining the support of existing groups in Central Virginia and to enhance our ability to identify resources, the Director of the State Department of Rights of the Disabled was invited to join the Executive Committee. The Dean of the School of Education was particularly concerned that the Project not concentrate on products unless there were assurances that they would be useful and beneficial to the targeted audiences.

After returning from Philadelphia, the Deans sent memoranda to Deans of the other schools and to department/program chairman requesting the identification of faculty to serve as members of the PRODD Project Management Team. (Those not responding were sent reminders after the beginning of the new year.) Meanwhile, the Executive Committee continued to develop and discuss strategies for developing the Project.

Early in the spring, a newsletter, the "PRODDer", was sent for distribution to the faculty of the Departments/Programs from which Management Team members were being solicited. The mailing list included other individuals and agencies identified by the Executive Committee. The first issue highlighted the national initiatives to develop interdisciplinary training curricula and sought to recruit faculty and community resource persons to support similar efforts at Virginia Commonwealth University. One column discussed the tentative plans for an interdisciplinary workshop which would be held near the end of the first year of the Project.

Agenda items for the first meeting of the Management Team were membership and function of the Management Team and the proposal for a workshop to be held in the Spring. In this initial meeting of the PRODD Management Team, we discovered that those in attendance were more likely to participate if the time demands were kept to a minimum. During the discussions, a number of those present commented about the difficulties they had experienced with their children with disabilities. The Team's reaction to the workshop proposal shifted the focus of the program from "Does the University adequately train helping professions to engage in interdisciplinary teamwork in providing services to disabled persons?" to "What are the critical issues in the training of professionals who provide services?".

During the workshop, barriers to coordination and cooperation in the delivery of services, as well as barriers to interdisciplinary activites within the University were identified. Suggestions for improving the ways in which services are delivered could be categorized as improving: 1) communications; 2. educational programs for service providers; and 3) education for individuals with disabilities and for their significant others. Strategies for addressing these concerns were discussed and many of the workshop participants made commitments to work with task forces to address some of these concerns. Although the tasks were overwhelming and resources limited, three task forces emerged. Membership in these included workshop volunteers and individuals suggested by the Management Team or the volunteers — faculty, students, practitioners, agency representatives, and recipients of services were identified as task force members. Leadership for the task forces was provided by a faculty member/s who received a small honorarium.

In another chapter entitled "Involving Students in Efforts for Interdisciplinary Cooperation," Dr. Ann VanSant describes the experiences of the VCU PRODD Project **Student Exchange Task Force**. The success of the task force can be attributed to the dedication and leadership of the faculty involved. Although limited, the faculty advisors were provided limited financial resources for refreshments for participating students and printing of materials. Clerical support was not always provided; however, the faculty members were aware that it was available on request.

The **Interdisciplinary Activities Task Force** had broader faculty representation. This was accomplished through peer persuasion and requests to Deans of the other schools. The level of participation varied among the members. Some attended regularly and participated fully. Others who were unable to attend did assume responsibility for specific tasks. Many of the individuals who were active on this task force are now members of an interdisciplinary committee planning a graduate course which will be initiated in the Spring of 1987. The incentives provided these individuals were minimal. Refreshments were provided during the meetings; secretarial services were provided on request. Letters of appreciation were sent to those members who were particularly active; Deans and Department/Program chairman were sent copies.

Faculty and Community Resource Task Force membership included faculty and community representatives. Once again, there were no specific incentives except those mentioned previously. The preparation of the **Faculty and Community Resources Guide** was a product for which most committee members have an expressed need.

Taking into consideration the experiences of the VCU PRODD Project and reflecting on the strategies which were successful, there are several recommendations which persons attempting to develop a similar initiative may find useful:

1. Tangible benefits whenever possible;
2. Consideration of personal interest and priorities;
3. Consideration of professional interest and priorities;
4. Frequent and reliable communication;
5. Administrative support and recognition for participation; and
6. Provision for visibility of participating faculty

Tangible benefits which may be provided to faculty include honoraria, decreased Departmental/Program responsibilites, and support services. Support services such as having secretaries compile, write and distribute minutes of the meetings, make meeting arrangements, arrange for duplication and printing, and make telephone calls are invaluable and will faciltate any undertakings of the group. Although provision of refreshments during meetings could not be classified as a tangible benefit, providing them tended to make the meetings more relaxed and more conducive to candid conversations.

Consideration of personal interests and commitments is an important issue. Having experienced many of the problems as consumers of services tended to make faculty members more interested and committed to effecting some changes in the curricula which ultimately would make a difference. Having an opportunity to interrelate with professional colleagues who had similar challenges in their personal lives brought unique perceptions to the discussion of activities and the assumption of responsibilities in developing those.

Almost all of the faculty involved in the PRODD Project have administrative or teaching responsibilities in programs which prepare students to enter one of the helping professions. Through their professional preparation and clinical experiences, they were aware and knowledgeable about the problems and issues involved in the delivery of coordinated, comprehensive services. These faculty members were also able to identify useful community resources, practitioners currently delivering services, and families/clients who would be willing to participate in programs for students. Working with others with similar **professional interest and concern** stimulated the participation of individual faculty members.

Frequent and reliable communication is a must. All involved, faculty as well as administrators, must be kept abreast of the total initiative. This can be done by circulating minutes of meetings or by distributing information via newsletter or similar vehicle. All faculty have an array of involvements and scarcely have time to complete necessary tasks. If the activities of an interdisciplinary endeavor are not kept in the forefront, the momentum of the project will be lost. In another chapter, Dr. W. Loren Williams discusses the use of the "Progress Analysis Summary." This technique not only served as a bases for the evalution of the Project, but assisted the groups in remaining on target and in making progress toward the goals the group had set.

Administrative support and recognition of the participation of faculty in activities of the project were also very valuable. The initial efforts of the Deans of the Schools of Allied Health professions and the Schools of Education in requesting assistance from other Deans in the identification of appropriate faculty members from their schools resulted in an official sanctioning of the Project by those who responded. It is also this administrative support which enabled the provision of the tangible benefits which were summarized above. Some activities undertaken by the Project involved the collection of information through the faculty identified by the Deans or Department/Programs. In some cases, the requested information was not provided. When the compiled information was circulated, Deans responsible for programs which did not respond inquired about the omissions. These inquiries stimulated faculty response to subsequent requests. Administrative support also is helpful in attaining resources, space and support services to sustain the interdisciplinary efforts once intitiated.

Visibility for participating faculty may be promoted through local publications as well as those of the Project and University. Acknowledgements were printed on materials circulated as products of the Project. Faculty members were provided many opportunities to make presentations, preside or to lead group discussions. Participation in such an endeavor may provide information for professional publications or presentations. It is also possible for faculty to gain new perspectives which may be useful in writing grant proposals for submission to agencies and foundations. Successful grantsmanship would enhance faculty visibility. Writing letters of appreciation to faculty with copies to responsible administrators was another technique utilized to enhance faculty participation in the development of the VCU PRODD Project.

In summary, securing faculty involvement entails selecting individuals with a personal and professional interest in activities to be undertaken, providing as many "perks" as possible, continually encouraging participation, and providing recognition for the efforts of the faculty member at every opportunity. Finally, all of this cannot be possible unless there is a single individual who can and will assume the role of "coordinator" to keep the direction and progress of the interdisciplinary group on target and moving.

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The Community and the University: Seven Steps to Collaboration

GWEN P. HANSEN

> Interagency collaboration has received particular attention during the last five years as a process through which community resources can be amalgamated. The scope of the concept and its utility has broadened appreciably under economic mandates and constraints of the late 1970's impelled by the need to capitalize on the largest number of resources at the smallest cost in the provision of services to handicapped children.*

A definition taken from the same article states "an interagency collaborative effort can be viewed as a process through which two or more agencies work together to articulate their separate programs for the purpose of providing special educational or related services to learners and their families."

Community agencies serving handicapped children and schools of higher education training students to work with handicapped children and their families fall within the above definition of interagency collaborative effort. The community agency has a vested interest in the training of students. Undergraduate and graduate students may utilize community personnel and facilities for report information, field placements for class assignments and internships, sources of data for research, sites for program presentations, practice teaching, in-class presentations on campus, letters of reference, in-service training, sites for the development of audio-visual aids, and employment after graduation. Universities utilize the vast resources of community agencies to fulfill their mandated mission in training students to work with handicapped children and their families. This process is educationally sound

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*Johnson, H., "Interagency Collaboration," *Exceptional Children*, Feb., 1982, p. 395.

and cost-effective. The community service provider should play a significant role in developing interdisciplinary training strategies and curriculm in schools of higher education.

Community agencies should be involved in the decision-making process in the determination of what should be taught beyond mandated requirements. Agencies sometimes chastise the university for not properly training the student who comes seeking employment after graduation. There are claims of deficiencies or over-education in some areas. The student knows the difference between empathy and sympathy but does not understand the relationship between what happens in the state and federal legislatures and the new regulations to qualify for funding. How do we bring "the town and the gown" together into a collaborative relationship which is going to best serve children with handicapping conditions?

Community service personnel identified the following barriers to community and university collaboration at the Professional Development and Dissemination Project Community Advisory Board meeting in Fresno, CA, in 1984. The barriers were time, communication, limited resources, differing priorities, manpower limitations, governmental regulations, values, and attitudes of personnel.

Recent behavior theory identifies values as a significant determinant of behavior. The community and the university must have opportunities for interaction for the purpose of exploring the values each holds in esteem. But realistically, values alone do not influence behavior. The cited barriers above have a signficant impact on what we would like to do and what we can do.

Institutions of higher education bear the responsibility for initiating the invitation to the community to become a part of the decision-making process in determining curriculm and training strategies by nature of legislative mandate. Federal and state laws regulate the minimum requirements for what will be taught, the academic requirements and training for credentials, licenses and standards for care. Higher education has a responsibility to community agencies beyond these mandates. Collaboration is more than a courtesy; collaboration is a necessity to insure the best possible opportunities for student development.

Community agencies should be involved in the planning process for developing university curriculm, interdisciplinary training, and opportunities for faculty, administration and students to learn the values of collaboration and networking. Higher education can develop a system for making the community feel a part of interagency education and training development. A series of steps will bring the community and higher education together.

Step One: Interdisciplinary Organization in Higher Education

Interdisciplinary action and collaborative efforts should be formally organized within the structure of higher education. This structure may be an Interdisciplinary Clinic, an Interdisciplinary Planning Committee, or an Interdisciplinary Council. Any organizational structure used should include community agency representation, parents and university students, faculty and administration. A formal organizational structure provides opportunities for planning and implementing programs, exchanging information, collecting data and administering evaluation.

A formal organization provides the opportunity to seek grant monies through government, corporations, foundations, and university-sponsored funds and may receive private donations for certain projects. There is also public relations and marketing value in a structured organization.

Step Two: The Invitation

Agencies that serve children with handicaps must be identified within the university service area. A directory or list should be developed and periodically up-dated. The university should invite the community to participate in all levels of curriculm and training development. Community advisory groups can provide an on-going linkage with the university.

Step Three: Outreach

University personnel involved with interdisciplinary training must be involved in community coordination activities, i.e., inter-agency councils, community councils, federal and state government coordinating organizations, and private associations for specific disabilities affecting children. Information can be shared through newsletters and reports. Faculty and community professionals should encourage student participation in meetings, conferences, and student affiliate organizations.

Step Four: Data Development and Information Dissemination

The university has a vast reserve of information available for use by community agencies in libraries alone. Students are manpower sources for developing original data. Classes can assist agencies in studies, surveys, and general information development. University resources are frequently available to help interpret data and provide computer capability lacking in certain agencies.

Graduate studies provide significant information for agency use, including Masters theses and doctoral dissertations on certain campuses. Many universities have funding libraries and grant information on microfilm. Computerized funding data are available on certain campuses, i.e., Special Net. Institutions of higher education and the community can work together to provide the most current information on training needs. The need for curriculm change can be jointly identified through data collection, analysis and continual evaluation.

Step Five: Participation

Community agencies must be offered the opportunity to participate in jointly-sponsored university activities, i.e, information dissemination, in-service training, continuing education, the development of audio-visual resources, and special events, such as wheelchair games, which provide the opportunity for university and community collaboration.

Step Six: Advocacy

Community personnel can play a vital role in defining legislative issues and provide leadership in defining legislative advocacy strategies. Parents are also valuable resources. It is in this role that the community agency representative can best inform the university on the implications of certain legislation as it will impact on handicapped children. The university, community agency, and parents can play a joint role in information dissemination.

Step Seven: Student Placements and Internships

The community is the support system for higher education field and internship placements. Important hands-on experiences are provided by community agencies. Creative working relationships must be maintained between community agencies and institutions of higher education. An on-going evaluation process should be a joint administrative role of both the university and community agency. A quality field and internship experience is the key to open the door of reality for the student. Students should possess a keen understanding of the varied roles within interdisciplinary teams. Students who have understanding of the values and importance of collaboration will make better team members.

In conclusion, the community service provider, university faculty, administration, and students can be involved in each of these seven steps. The university must be the catalyst for collaboration. Together, we must take a hard look at what presently is being done, what we should be doing, and examine better ways of fostering collaborative efforts. We must cooperatively look at curriculum to assess what information, experiences, values, and appreciations are going to best prepare the student to meet the needs of the handicapped child.

Note: Use the seven steps above as a checklist and rate your agency 1 through 7. If you rate 6 or 7, you have a good community-higher education collaboration rating.

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Involving Students In Efforts for Interdisciplinary Cooperation

ANN F. VAN SANT

Virginia Commonwealth University's (VCU) PRODD Management Team recognized early that students from different disciplines would benefit from opportunities to interact with each other in other than formal instructional situations. During the second year of the PRODD project a **Student Exchange Committee** was formed of and for students in order to facilitate this type of interaction. This report reviews the VCU experiences with a Student Exchange Committee and summarizes key elements that were important in promoting interdisciplinary student interaction outside the classroom.

A member of the PRODD Executive Committee took responsibility for organizing the **Student Exchange Committee.** Early in the PRODD project several faculty members indicated interest in participating in a student-oriented committee. However, out of that pool of approximately six or seven individuals, only two faculty members were able to commit time during the semester that the student exchange committee was first organized. The faculty members came from each of VCU's two campuses: a large main campus and a smaller health science campus. They assumed the roles of Committee advisors and began planning for the first meeting.

Our Management Team members, particularly those who had expressed interest in the Student Committee, were then asked to help identify students from their disciplines who would be willing to serve on the **Student Exchange Committee.** Students were recommended from the following disciplines: Rehabilitation Counseling, Occupational Therapy, Special Education, Social Work, Physical Therapy, and Psychology. Although in some instances more than one student had been identified from each discipline, no discipline appeared over-represented. One of the students recommended to the Committee was disabled.

Students were contacted by phone by one of the faculty advisors and asked to serve on the Committee. Those willing to participate were sent a written reminder of the date, time and location of the meeting. The initial meeting was scheduled late in the afternoon when it would interfere with the least number of classes and on the campus with the largest number of potential Student Committee members. The goal of the first meeting was to acquaint students with the PRODD project goals, what activities had been accomplished already, and the need to have students involved.

The students were quite interested in PRODD, but needed time to get acquainted with each other. Prior to this first meeting they had not met one another. As a group they were hesitant to speak out; so most of the early going was faculty-directed. Their earliest participation was characterized by a sharing of problems in their own training programs that prevented interdisciplinary cooperation, comments such as: "We spend so much time in the classroom there is no time for interdisciplinary practice." "We learn about it (interdisciplinary cooperation), but we never get to see it." "Here I am out there serving people, and there is a nurse and a physical therapist working in the same agency, and I have no idea what they do." This willingness to identify problems within training programs seemed to start the process of becoming a group.

Early on, several students seemed to come and go from the committee. Eventually the group stabilized with five students, all enrolled in pre-professional programs. With the exception of one individual, the post-professional degree graduate students stopped attending. This latter group included the disabled student.

We began to get to know each other over the course of the first few meetings and became sensitive to when and where meetings were scheduled. This involved identifying the best possible meeting times in recognition of great variability in class schedules, etc., and varying the location from one campus to another so that members did not always have to travel between campuses. This process allowed students and faculty to learn of differing program requirements.

Having gotton to know one another, the group began to brainstorm goals and objectives for the Committee. On several occasions these goals "over-lapped" with the functions of other PRODD activities and committees. This was particularly the case when goals were generated that had to do with instructional practices. For example, goals were generated that would have identified facilities for clinical training in which true interdisciplinary cooperation was practiced, or best practices in clinical training for interdisciplinary cooperation. As the objective for the **Student Exchange Committee** was to involve students in other than instructional activities, these ideas were passed on to the most appropriate committee of the PRODD project.

After about three months of bimonthly meetings, the group finally identified an objective to which all were committed: a Student Symposium, by and for students, to acquaint students in the helping professions with each other, the roles of various disciplines in serving the disabled, and the issues surrounding interdisciplinary cooperation. Once this goal was identified the committee "took off"! Viewing the Symposium as a professional seminar, the students were eager to plan the program, including generating a budget for the Symposium to be presented to the PRODD Executive Committee. The faculty advisors served as resources during this process.

The academic year came to a close as the students learned their budget and tentative date for the Symposium had been approved. The Symposium was to be held early the following fall semester. Many details had to be accomplished before the end of that spring semester and students were quite busy with final exams and projects. This is where the students' commitment and the support of the faculty advisors were essential. All major tasks were accomplished before most students left campus, and the faculty advisors had only to wait for the keynote speaker's response, and prepare a brochure over the summer to annouce the Symposium.

Fall semester began with everyone rested, a keynote speaker who was quite ill, and different course schedules and time commitments on the part of all Committee members. Early in that semester it was obvious that additional students were needed to share the workload involved in conducting the Symposium. This is where friends of the committee members and graduate students in the advisors' departments were recruited. Much of the help needed involved small tasks. Graduate students seemed more than willing to assist with these tasks, although they were often unable and, therefore, not expected to attend Committee meetings.

To assure student participation in the Symposium, no fee was charged to attend, and a luncheon was provided. The Symposium was held on a Saturday when it would not conflict with regularly scheduled classes. Members of the PRODD Management Team were provided with brochures, and asked along with members of the **Student Exchange Committee** to invite students in their programs to attend and to encourage their participation. The Symposium was advertised as open to all, but with limited number of possible attendees. Reservations were taken by the PRODD office on a first-come first-serve basis, with some consideration given to a good mix of different disciplines. No one was turned away.

The Student Committee did a wonderful job selecting activities for the program that involved large numbers of students. The objectives of the Symposium, centered on getting to know about disciplines other than one's own, and becoming sensitive to interdisciplinary issues.

In order to get to know about other disciplines, and as an ice-breaker for the beginning of the Symposium, each student was assigned the task of finding a person from another discipline and asking him/her specific questions. The seating arrangement at the Symposium put students from different disciplines at the same table.

Students from each discipline attending were encouraged to prepare a poster characterizing their professional roles in serving the disabled. A most impressive group of posters was on hand for students to browse through during breaks. There was a great deal of interaction between individuals from different disciplines around these posters.

A quite clever part of the program involved playing "To Tell The Truth," i.e., "Will the real Social Worker please stand up?" This admittedly was a faculty idea. The students had never seen or heard of the TV program as the faculty knew it, and had to be taught how to play the game! The students enjoyed it immensely, however, once they learned how to play. In addition to promoting audience participation during the game to question the three "social workers," two students from disciplines other than that being represented had to learn a bit about the discipline in order to become a good fake. Interestingly, the imposters were quite adept at fooling the audience, and the student moderator took the opportunity to point out how easy it is to falsely stereotype members of a specific discipline.

The last-minute replacement for the keynote speaker did a wonderful job sensitizing the participants to the problems she faced as a disabled individual receiving services from so-called helping professionals.

Students were then involved over lunch in discussion of a case study (prepared by a member of the **Student Exchange Committee**) that required cooperative interdisciplinary efforts. This proved to be a highlight of the Symposium, as the students got to know each other as people, and learned about how to work together to solve a problem.

The Student Symposium was a raving success. The participants provided overwhelmingly positive feedback, with negative comments directed only toward the room temperature (too cool), the food (too much mayonnaise), and only one negative comment about scheduling the activity on a Saturday. The **Student Exchange Committee** took a great deal of pride in reviewing the positive feedback captured on Symposium evaluation forms.

In summary, several key elements assured the success of the **Student Exchange Committee**. First were the attitudes of the faculty advisors. These individuals respected each other professionally and enjoyed each other's company. They were mature enough in their professions to not be fighting turf battles, and to be committed to the notion that interdisciplinary cooperation is best for the individuals receiving their professional services. The faculty advisors were also sincerely interested in students as people and in helping young men and women grow. Additional characteristics of the advisors that were helpful were enthusiasm and a sense of humor.

A second key element was the pool of faculty who were interested and supportive of the notion of student involvement in interdisciplinary activities. This resource was used to identify a faculty advisor for the group, to identify student members of the Committee, and to encourage student participation in the Symposium.

A third key element concerned selecting students to serve on the **Student Exchange Committee**. Students in the first year of professional training seem best suited for this activity. So much time is usually devoted to foundation courses during that year, that first-year students are attracted to activities more related to professional practice. More advanced students are often off campus for practical training and unable to attend committee meetings. Graduate students receiving post-professional training in their disciplines, though interested and supportive, have difficulty due to work schedules and other time constraints. Once beginning students become involved with an interdisciplinary group, they seem to maintain that involvement through a reasonable time period that allows them to see the accomplishment of a major committee goal. Their interest begins to wane as they become involved in more off-campus training. Therefore, it is important to involve a new group of first-year students each academic year. This allows for the momentum of one committee to be passed on to the members of the next.

Finally, it was important to have support services to prepare and distribute meeting minutes and announcements, and to provide technical support when preparing for the Symposium. The PRODD office provided this necessary and much appreciated help.

The **Student Exchange Committee** at VCU was a highly successful endeavor that involved a large number of students of the helping professions in a very positive interdisciplinary experience. Its success was due in large part to the interest, enthusiasm, and support of not only the members of the **Student Exchange Committee** but the faculty and students from a wide range of helping disciplines on our two campuses.

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Student Involvement in Interdisciplinary Training

GWEN P. HANSEN

Universities frequently fail to include students in the development of interdisciplinary training and collaboration programs. This failure to involve students often happens as an oversight in the planning process rather than as a lack of appreciation for student input. Concern is readily expressed for university faculty and administration involvement in interdisciplinary training. Preliminary planning is immediately expanded to include community service professionals and parents of handicapped children. The network between the university, community and parents can unfortunately be implemented without student involvement. Certain deficiencies result from the lack of student involvement in developing interdisciplinary training. These deficiencies can be identified in curriculum development, on-campus interdisciplinary projects, student placement and internships, and dissemination of information within the university.

Barriers to student involvement are present as are the barriers within the university to the overall interdisciplinary training concept. There are the barriers of time, identities, territorialism, lack of information and resources, and priorities. Lack of student involvement is a barrier. Leadership within the interdisciplinary planning team must identify the involvement of students as a prime priority when initiating planning for interdisciplinary training.

Recruiting Student Team Members

Interdisciplinary faculty leadership should identify students who they feel will make an effective contribution to the overall planning team. The students enlisted must be involved as equals and must be given meaningful roles. Faculty members who work on a daily basis with students can identify undergraduate students who have a sound helping philosophy and a philosophy within their own discipline. These students must possess the desire and skills necessary to work as part of a team effort. Written and verbal skills are important to students who will be working with university faculty and administration, community professionals, and parents.

Students must be offered creative opportunities to make contributions which may include writing news articles, making presentations on radio and television on and off campus, planning and participating in seminars and symposia, developing and distributing interdisciplinary information, serving on curriculum committees, developing audio-visual aids (video tapes, cassettes, slide presentations and displays), and planning and implementing class and community presentations. The key to student involvement is twofold: Students must feel that what they are doing is important and worth their time, and they must feel congruence with the total team.

Student Orientation and Team Building

Once the priority is established to include students on an interdisciplinary basis, the faculty should recruit a broad spectrum of students from various disciplines, i.e., adapted physical education, communicative disorders, art therapy, dance therapy, child development, family studies, home economics, health science, nursing, psychology, social work, recreation therapy, special education, pharmacology, music therapy, and other adjunctive therapies.

Students representing various disciplines need the opportunity to become acquainted prior to being involved in total team planning. This acquainting period is important for purposes of socialization, acquiring knowledge about various disciplines, and developing team spirit. Faculty members who have been involved in the recruiting may plan a series of activities with the students prior to their joining the full team. Students may recognize each other from general education classes but not realize their mutual interest in handicapped children.

Pot-luck suppers or brown bag lunches combined with socializing activities, audio-visual presentations, parent presentations, and field trips can break down barriers of identity and territory. This phase of planning is very important to the students' development of their identity when joining a team that does not include their peers and does represent certain authority. It is advisable to use certain faculty members as a part of the students' orientation activities. The orientation of the student should include the overall generic goals of interdisciplinary training and collaboration. Now the students are ready to join the group as equals and enter into the planning and programming process as an integral part of an interdisciplinary team.

Student Compensation

Students' time can be compensated for in several ways. Grants, which may be identified as part of the objectives (activities) in meeting defined goals, frequently provide stipends for students participating in training programs for handicapped children. Grants may be sought within the university or from governmental or private sources. Students may broaden their contacts within the university or within the professional field outside of the university. Interdisciplinary collaboration may be extended to other universities that will offer an even broader area of reference. This aspect of student involvement can be important to the undergraduate student looking forward to graduate study.

Class credit can be offered through independent study, as part of regular class assignment, through a special topics course or as graduate study, including projects, field work assignments and internships. Entering into working relationships with students in other disciplines, university faculty and administration, community professionals, and parents can be a satisfying experience as successful projects are completed. These projects then become a part of the student's developing resume.

A Model for Student Involvement

1. All interdisciplinary university faculty should contribute suggestions for students who may be interested in participating in interdisciplinary programming. Consult with the identified students and develop a list of potential team representatives.

2 Identify at least two faculty members and one community professional to enter into planning with the students.

3. Plan at least two or more meetings with the students to help them become aquainted, more informed on an interdisciplinary level, more developed in team skills, and more oriented to the concept of interdisciplinary collaboration.

4. The first combined meeting of students, university faculty and administrators, community professionals, and parents should be organized to allow for interaction on a one-to-one basis and provide for use of small groups. Individual identification is important. Don't forget

designated "welcomers" and name tags. Refreshments before or after the first meeting will provide for informal socialization if time allows.

An example for small group interaction would be "brainstorming" goals. The rules for brainstorming do not allow for pro's or con's; so everyone's contribution is equal. Ideas can be written on butcher paper for further planning. Participation by all of those involved is very important to the team building concept.

5. Students must be given meaningful roles. Students can be more effective in accomplishing certain tasks. Completing student surveys, communicating curriculum or class information to peers, planning and developing student symposia, and developing promotional materials for campus use are but a few of the projects students can plan and implement in cooperation with the entire team. The important factor at this point is for students to feel ownership and valid involvement. Planning is the key to making students feel this ownership. Give students roles in implementing the activities associated with the goals established which will bring out the best of what students have to offer, which is orginality, creativity and a straight-forward approach.

6. Student visability is important to student participation. Photojournalism classes can be involved in assisting with audio-visual projects. Unique training projects in which the students are involved can be the subject of articles in school publications and local, state and national publications.

Satisfactory student participation in interdisciplinary projects and programs will have a drawing effect on other students who will want to know, "How do I get involved?"

7. Provide recognition and compensation for a student's contribution. A letter of commendation addressed to his academic advisor will demonstrate appreciation. A student who has made a significant prolonged contribution to interdisciplinary collaboration may warrant recognition in the "Who's Who of American University Students."

Student involvement has the potential for significantly improving the effectiveness of interdisciplinary training for those who will be working with handicapped children. Students' attributes will contribute to the process of developing training modalities while they learn a more efficient way to serve children with handicaps and their families.

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Strategies for Integrating Generic Core Competencies into Curricula and Training Activities

TONI HEINZE

Children with special needs may require a variety of services throughout their young lives. Some may need medical services at birth, and therapy and adaptive aids at an early age. Others may require ongoing medical or therapeutic services for many years. Still others may benefit from special educational programs, counseling, and other social services through a variety of service delivery systems. Professionals in education, psychology, nursing, and allied health are called upon daily to evaluate, develop programs for, advocate for, and provide direct service to these individuals with special needs. The number and range of professionals who will be involved with a handicapped youngster can be great. The services provided vary; the language, techniques, and aids used vary; the service delivery systems vary. Yet, for the handicapped child who is the ultimate reason for, and consumer of, our services, this diversity must serve as a strength, not a deterrant, for effective service delivery. The common goal of meeting the child's needs must take priority.

Public law 94-142 and Section 504 of the Rehabilitation Act call for a team approach to providing the most appropriate services to handicapped children. For a wide range of professionals and families to work together effectively, there must exist sensitivity, avenues for communication, expertise specific to the various fields involved, and a number of "generic" competencies. These generic competencies include attitudes, knowledge and skills which are important to all those working with handicapped persons, and they should be developed in all related training programs. Such generic competencies might include:

- Legal and regulatory issues (i.e. right of the handicapped individual, and his/her parents, appropriate federal and state mandates);

- Societal and professional attitudes (i.e. stereotypes and limited opportunities, roles of related professionals, economic and social implications); and

- Professional practice (i.e. issues related to identification, assessment, program development, team roles and strategies, accountability, advocacy, effective communication skills, research, continued professional growth).

Such a list of competencies can be generated in several ways; however, it is important that input come from such sources as the relevant training programs, consumers, and service providers. Initial involvement in the identification of generic competencies is especially critical to continued commitment to integrating those competencies into program coursework, clinical experiences, conferences, and ongoing professional growth opportunities.

STRATEGIES FOR INTEGRATION

Once appropriate competencies are identified, actual implementation can take many forms. In fact, creativity and a real desire to explore new ways of cooperating make the implementation of the competencies an on-going and rewarding adventure. The strategies suggested here originated from interdisciplinary teams and other interested participants at all three PRODD centers. They include a wide range of approaches from program changes to special transdisciplinary experiences to resource directories. As with the previously listed areas of competencies, this section is not meant to be comprehensive, but to provide examples of a variety of approaches which can effectively integrate knowledge and skills generic to all helping professionals who work with handicapped youngsters. The examples here may serve as catalysts to the imagination of interested readers.

Program changes/modifications

There are a multitude of strategies for adding content and skills to existing training programs. One such strategy involves the infusion of such material into existing courses in related programs (i.e. education, special education, therapies, psychology, counseling, nursing). This can be accomplished by jointly developing teaching modules, instructional materials, special assignments, and team teaching agreements. Another way to infuse added content into programs is to broaden practicum experiences to include a greater degree of interaction with individuals with disabilities and service delivery systems and more opportunities to participate in interdisciplinary teamwork. Both strategies require careful planning and cooperation so that all programs involved derive relevant benefits.

Still another way to add content and skills is to broaden the array of electives, which can count toward various major programs or toward general graduation requirements, including introductory courses in the professions related to working with individuals with disabilities. Similarly, opportunities to observe or participate in diagnostic treatment clinics and labs on campus or in the community which provide service for disabled youngsters could be open to a greater number of students in related fields. Videotapes of evaluations or staffings in the clinics could be developed to be shared by several programs. Tasks, assignments, and credit could be jointly determined by cooperating programs. Likewise, agreements can be developed between two or more programs regarding joint student assignments or projects where students work together, using their expertise to solve a particular problem or develop a particular product. Such joint projects should facilitate a greater appreciation for the expertise of others, and easier communication and cooperation when these students become professionals serving the same student or client.

Still another approach could involve the establishment of new courses altogether. Courses could take several different directions, and be geared toward different groups of students. One such course might emphasize exceptional individuals in today's society, with a focus on social, economic, political, educational, legal and medical aspects; it might be open to students from any major and could be taken to meet general graduation requirements. Another course might emphasize a case study approach to facilitating the development of positive linkages among interdisciplinary team members; it might stress the client or student with a disability as a common denominator and the services to this individual as a common goal toward which all involved persons can work cooperatively. Such a course could be geared toward students in the related professions (i.e. regular and special education, therapy professions, nursing, counseling, PE, communication disorders) who will be working with disabled individuals. Still a third type of course might emphasize those competencies which are felt to be critical but best presented in a common core course rather than infused into existing courses. Such a course, as the previous one, could be geared toward students in professions involved in working with disabled youngsters and/or adults. Accompanying observations or clinical hours could enhance concepts included in any of these types of courses. As with infusion approaches, the development of such courses, their roles in various programs, and the teaching methodolgies will depend on the cooperation and commitment of faculty, students, and service providers.

Special experiences

Campuses and communities offer numerous opportunities for students to broaden their knowledge and skills related to working with other professionals in serving handicapped individuals. Conferences, symposia, workshops, and seminar series can present students and service providers with new perspectives, new resources, and new methodologies. These special experiences can be developed cooperatively by faculty, service providers, consumers, and students for the purposes of increasing awareness of the roles of various disciplines, fostering interdisciplinary approaches, increasing communication skills, avoiding negative effects of territoriality, examining team members' roles in staffings and Individual Education Program (IEP) meetings, and so on. Audio-visual teaching materials can be developed to be shared with interested programs and students. Faculty can encourage attendance at such programs through a variety of reinforcement systems.

Volunteer programs in schools and nursing homes, special summer camps and year-round special adaptive PE or art programs also offer valuable opportunies for students from many professional fields to work with handicapped individuals, meet people in related fields, broaden their professional language base and communication skills, and see how a variety of skills and positive attitudes can lead to appropriate services for handicapped youngsters. University credit or hours toward clinical requirements can be used to support program commitment to students' participation in such experiences. On most campuses working with the Services to Handicapped Students Office also provides valuable and enjoyable experiences, allowing students to become aware of special needs and adaptive learning approaches plus equipment used by their fellow students who have disabilities.

"Generic" competencies should also be included in continuing education opportunies for professionals already in the field. Often these individuals are not interested in advanced degree programs (or may have already attained them), but they are interested in professional growth and additional problem-solving strategies—a great opportunity to develop interdisciplinary team approaches, build new linkages, and broaden professional language bases! Flexible course work, inservice training, workshops, or seminar series are all feasible mechanisms through which we can build and refine many skills and attitudes which will facilitate professionals working together effectively to provide services to handicapped individuals.

Student organizations

Another very effective means of fostering interdisciplinary team work and sharing ideas and skills involves the student organizations in the various professional fields. Such professions as education, special education, nursing, physical therapy, and psychology generally have student groups operating on university campuses. Such groups often support each other in a wide range of activities and issues. Students can be encouraged to broaden the number of activities in which they cooperate; they can be encouraged to identify campus and community needs with regard to handicapped individuals, and to devise problem-solving strategies which involve the expertise and contacts of various student groups and their advising faculty.

Resources

An easy, practical and effective strategy for fostering interdisciplinary approaches involves the development of various types of resource guides or directories. These can be primarily concerned with campus facilities such as clinics, labs, audio-visual materials, special programs for volunteers or for credit. They can offer listings of introductory courses in the allied health fields open to students from a wide range of programs, and can be shared with faculty and advisors. Resource guides can also include interdisciplinary resources in the community or state which faculty can use in their programs, and which students can use during their clinical experiences and later on the job. As with any strategy that is to be seen as relevant and used by individuals from several fields, these resource guides are best developed jointly, allowing all interested fields and sources to contribute to their direction, content, and potential uses.

GENERAL FACTORS FOR SUCCESS

Whatever the approach or activity used to facilitate integration of concepts and skills related to working with handicapped individuals, several factors will be critical for success. First, participants will need a real dedication and commitment to the idea of related professions working together themselves and training new professionals to work together. This commitment must be accompanied by an open-minded and creative attitude toward communication, problem-identification and problem-solving—an adventurous and positive attitude not bound by the way things may have been done in the past.

As far as general approaches go, there are several practical advantages to a "bottom-up" strategy where individual faculty members, small groups of students, or pairings between faculty, students, consumers, and service providers work together. This is in contrast to a "top-down" approach where mandates or recommendations are given to all related programs without the necessary individual "grass roots" initiative and cooperation being considered. The bottom-up approach fosters more natural communication, specific goal-oriented problem-solving strategies, and opportunities to build on and share the varied strengths of those involved. Such activities as student exchanges, shared projects and assignments, combined clinical experiences, team teaching, and the joint development of teaching materials, course modules, or seminar series are most likely to occur when small groups of interested persons work together and gradually broaden or rotate such alliances as opportunites or needs arise.

Another factor for successful implementation involves modeling. While students often initiate their own cooperative activities, especially through their respective organizations, or through friendships, it is important that students see their faculty and supervisors involved in cooperative ventures—talking with each other, sharing expertise to solve problems, working to ameliorate turf issues, attending and sponsoring relevant conferences or seminars, and generally respecting the expertise and roles of their colleagues in related helping fields. Not only can modeling demonstrate the appropriateness and benefits of working together, it can also provide opportunities for students to see **how** it can be done—how communication can be initiated and facilitated, how strategies can be developed and implemented, how difficulties can be worked out, and how the end result can lead to better services for handicapped children and new and productive relationships for professionals.

Successful implementation will also come easier when there exists an on-going system which offers all interested indivduals (i.e., faculty, consumers, services providers in the field, and sometimes students) opportunities for input regarding identification and evaluation of relevant competencies and strategies for intergrating them into training sequences. Such a system can take various forms as long as it offers easy access to interested persons and encourages participants' ownership in both the process (training and continued development of professionals who will work with handicapped children) and the product (the trained professional ready to take on the varied roles and responsibilities of his/her field).

SUMMARY

The wide number of professionals who provide service to handicapped children can insure a range of skills and expertise available to those children; it can also present difficulties in working together effectively unless those professionals are aware of the diverse needs of handicapped children, and make the effort to communicate with each other, share information, and appreciate the value of all team members' abilities. It follows that our professional training programs must instill such content and skills as will facilitate a sound understanding of the child with a handicap, and a determination to work cooperatively in helping that child reach potential. The strategies included here are intended as realistic possibilities—indeed, many programs are already implementing these and other strategies—and as an encouraging "prod" to concerned and creative professionals in all fields providing service to youngsters with handicapping conditions.

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Development and Utilization of Audio-Visual Materials

SANFORD M. BROWN

One of the most important aspects of any grant-supported project is the residual effect of the program after the grant support has terminated. This dissemination phase or reach-out effect is essential to the continuation of grant-supported programs. If others continue to want what you have produced the project or program continues to function. This reach-out concept was carefully built into the third year objectives of the American Society of Allied Health Professions (ASAHP) grant proposal, Training Alliance in Health and Education (TAHE). The Professional Dissemination and Development Center (PRODD) at C.S.U.-Fresno looked upon this particular objective as top priority. Dissemination and reach-out activities included the integration of PRODD into the C.S.U.-Fresno campus programs as well as the provision of resources and assistance to other institutions and community agencies in California and the Western United States.

The three-year TAHE program at C.S.U.-Fresno produced many tangible results. These products included the presentation with our advisory committee of two conferences with brief proceedings; a symposium that resulted in the production of a "Buyers and Sellers Guide," a core competency report and matrix, a new capstone course entitled "Enabling the Disabled: Developing Knowledge and Skills for Working Together;" a Handbook of Team Building Activities, a training manual, a Faculty Resource Directory, a Student Placement and Community Services Directory, a newsletter, and several videotapes. All of these products are useable for both special education and health professionals who work with handicapped children.

Two products, the "Buyers and Seller Guide" and the video tapes, are the most exportable products. The "Buyers and Sellers Guide" is a listing of all the people who attended the Fall 1986 conference and symposium. Each person listed information and programs in relation to handicapped children that they had to offer other people as well as what they needed or were looking for to enhance their own programs (This "Buyers and Sellers Guide" was the idea of Dr. Judy Smith-Davis, "Counterpoint," Reno, Nevada).

Of all the products generated, the most successful and most useable over a continuing period of time is our first video tape, "Training Alliances in Health Education," that describes the PRODD grant project. The other video tapes that followed provide us more material to enhance and continue the dissemination of the program to other schools. Following is a report of the plans, discussions and activities related to how the traditional video tape emerged as one of our best products.

At one of the Management Team's monthly meetings the group was discussing ways to "glamorize" the Fall '86 conference on "Networks: Key to Developing Schools, Community and Health Partnerships." This conference was the first phase of the reach-out activities to other schools in the University service areas as well as the State of California. Dean Homer Johnson mentioned that there was a journalism class and that each year the class, as a project, has to produce from beginning to end a multi-media presentation as a public relations project. The class instructor was contacted, discussion ensued and eventually a contract was signed with the class and PRODD as the client. The class met with Dean Johnson and Gwen Hansen, Third-Year Project Coordinator of PRODD, and a plan and script were developed to produce a videotape from a series of slides taken by the class at the Ginsburg School. Some of the slides also came from Gwen's program for autistic children at Camp Bulldog. As the project developed, Gwen matriculated as a student in the class and became one of the directors of the project. She contacted a local T.V. newscaster to do the audio portion of the tape as a public service offering by his station, Channel 47. Dean Homer Johnson of the School of Education and Human Development and Dean Sanford Brown of the School of Health and Social Work taped introductions to the presentation and eventually all parts were video-taped and edited.

The video tape was first used at the Fall '86 Conference and was a success. The CSU-F Vice President wanted a copy for University public relations. Copies were made and shown at the 1985 ASAHP Conference in Dallas, and other schools who saw the tape wanted copies. The tape, entitled "Training Alliances in Health and Education," is designed as a description of the PRODD efforts as C.S.U.-Fresno. It illustrates educators and health professionals working together at the Ginsburg School in Fresno, CA. The Ginsburg School is a model school for children with handicapping conditions. It utilizes a cooperative team approach by both the therapists and teachers. The audio-visual clearly illustrates health and education working together.

After the success of our initial video tape, Barbara Crofts, the School Nurse member of the PRODD Management Team, decided that the School Nursing Credential Program in the nursing curriculum could use a visual that would summarize the activities of the school nurse in the elementary and secondary schools with particular emphasis on handicapped students who are being mainstreamed. The video could then be used in both the Special Education and Teacher Education programs as well as the School Health Nursing classes. From these discussions a video tape entitled "The Role of the School Nurse" with handicapped children evolved. The students planned and developed the script, slides, and various audio portions of the tape, and the Instructional Television Center (ITV) at C.S.U.-Fresno produced and directed the final product.

A home economist at CSU-F, Carolyn Jackson, who was a recent addition to our PRODD Management Team, has as one of her specialties the design of adaptive clothing for handicapped youngsters. She mentioned that there were few, if any, visuals in this area. So the Management Team agreed that an audio-visual tape should be produced. Student Members of the Management Team for the Department of Family Studies and Home Economics began to plan, develop and design the project for this particular video tape, "The Design and Use of Adaptive Clothing for Handicapped Children." It will include sleepwear, undergarments, skirts, tops, knits, coordinates and sport clothing using various fabrics. It will also include a demonstration of assisting the handicapped youngster in utilizing the clothing.

As a result of this tape, the Industrial Technology Department situated in the same School as the Home Economics Department will produce an audio-visual tape on "Adaptive Facility Design for Handicapped Persons." Also, the Adapative Physical Education Program in the Department of Physical Education will produce an audio-visual tape on exercise movements for the handicapped. Both these latter tapes were a direct result of our initial efforts in the first audio-visual tape.

An additional video tape, "Interdisciplinary Collaboration in Clinical Work with Families," is available through the Interdisciplinary Center for Human Services (IDC) at C.S.U.-Fresno. The IDC is a training and research center which combines assessment and treatment of clients in the areas of intellectual and personality characteristics, learning, speech and hearing discorders, problems in social functioning, physical dysfunctions, health status appraisals of promotion of wellness principles, and counseling in personal, social, vocational, physical, education, therapeutic recreation, and adapted physical education problems. The IDC video tape emphasizes collaboration among various health and special education professionals in a multi-disciplinary setting. It includes an overview of the clinic services, as well as case studies demonstrating collaboration of professionals with various clients.

In summary, the PRODD Management Team believed that the development and use of video tapes was one of the best methods of continuous dissemination of the C.S.U.-Fresno PRODD Center activities. The use of video tapes is not new, but the various concepts in development of the tapes differs from producer to producer. For information on the use and/or securing of a copy of the various video tapes developed by the C.S.U.-Fresno PRODD team, please contact the School of Health and Social Work, California State University, Fresno, CA 93740.

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PAS — A Strategy for Monitoring Project Progress

LOREN WILLIAMS

Introduction

Early in the history of the PRODD Project it was recognized that it would be desirable to have an internal evaluation activity. The PRODD Executive Committee struggled with evaluation design for several months. A major difficulty encountered in designing an evaluation mechanism was the lack of clearly defined goals. This problem became more critical with the formation of a number of task forces, each with interdisciplinary representation of faculty, students and community resource persons.

The author of this brief report was asked to perform that evaluation function, taking into consideration the diversity and interests of the various groups working to develop PRODD Project activities. Several meetings were held with the PRODD Executive Committee to help the internal evaluator understand the PRODD project and the people involved in it. From these conversations it was clear the project itself had a strong process orientation. An internal evaluation system that respected this orientation but at the same time was sensitive to product outcomes was needed. It was also clear that the internal evaluation system needed to respect the diversity of interest in views represented on the several multidisciplinary task forces which were created to plan and carry out PRODD activities. From these considerations the basic elements of the PAS or **Progress Analysis Summary System** evolved. These elements are:

1. Formal written minutes of each task force meeting;
2. A written interpretation of these minutes done in cumulative fashion by the internal evaluator and following a standardized format;
3. Review and critique of the interpretation and appropriate action by each individual task force and by the PRODD Executive Committee.

Details of the PAS System

The PAS System is based on monitoring the goals set by the PRODD Executive Committee and by the individual task forces by reviewing detailed minutes of all meetings. The Executive Committee and the task forces were asked to develop goal statements for the Project evaluator. The evaluator developed a form which would briefly summarize the progress noted in achieving the goals set forth by each.

Initially, an effort was made to impose a standardized format on the minutes prepared by each task force. Each group was asked to maintain its minutes by modifying the initial and subsequent Progress Analysis Summaries. This was determined to be overly restrictive and perhaps confusing. It was agreed that minutes could take the form that was most convenient to each task force as long as the minutes were informative. The evaluator reviewed the minutes, adding new information and any other evidence of progress to the Summaries. The Summaries were returned to the groups for their review, corrections and additions.

ELEMENTS OF EACH PROGRESS ANALYSIS SUMMARY
(See attached examples)

Unit

This designation provides a space for the title given to the Executive Committee and each task force. Since there were a number of functioning units in the PRODD Project, it was important to be able to readily identify each. Initially, there were four task forces. When the groups changed names and merged, this kind of designator became increasingly important. In reviewing the Progress Analysis Summaries of task forces prior to and after the consolidation, one can follow the rationale for the changing foci and the merger.

Database

This refers to the task force minutes or other documents that were referred to in the preparation of a particular Progress Analysis Summary. The dates of the minutes and the dates of acquisition of other materials were recorded as part of the on-going summaries.

Goals

Goals were developed and stated precisely by the task forces. These were not interpreted by the evaluator. The task forces were asked to review and modify the goal statements periodically, taking into consideration the progress of the task force, changing emphasis and additional undertakings.

Activities

When the task forces developed their goal statements, they listed activities to be undertaken to achieve the goals. The minutes of each meeting reflected planning and activities conducted by the members of the task force. This is where the internal evaluator began making interpretations from documents provided to him. Activities were divided into two categories: those which were planned and had not yet taken place, and those which were completed within the time period covered by a particular Progress Analysis Summary. The evaluator's interpretation of activities as related to completion and to the attainment of a stated goal was reviewed by the task forces. Any differences of interpretation were resolved by submission of additional information to the evaluator or by providing clarification of facts or intent.

Accomplishments

Again, interpretation of documents was made by the internal evaluator. Once a task force goal had been achieved it was recorded in the accomplishment category. Early in the development of the evaluation process, task force members were concerned because of the lack of acknowledgement of accomplishments. Increased communication with the evaluator clarified the criteria which signified the accomplishment. The accomplishment was not always the attainment of a goal; it frequently was the completion of an activity. When events dictated a change in the stated goals, the revisions were made and incorporated into the summaries. Occasionally, something else of major importance would take place; although the event may not have seemed appropriately listed under accomplishments, it was recorded to prevent loss of information.

Problems/Comments

Here the internal evaluator raised questions for the task force to consider or pointed out issues where some clarification might be needed.

This section was also used to note any problems encountered by the groups as they planned activities or attempted to implement activities. Observations and insights relative to the development and implementation of Project activities and notations of Project spin-offs were also documented in this section.

Examples

Two documents are presented. The first (see Example I) is a Progress Analysis Summary, dated April 1, 1985, for the Team Teaching and Faculty Exchange Task Force. This PAS is based on the minutes of two meetings of that task force. Please note in this PAS a goal to explore the possibility of realignment of task forces. Although this is not a well-written goal statement, it does indicate that the Team Teaching and Faculty Exchange Task Force recognized potential overlap in the focus of the task forces and proposed this exploration to eliminate duplication of effort in the overlapping areas.

There is a similar Progress Analysis Summary dated April 1, 1985, for the Resource Guide Task Force; it was based on the minutes of three task force meetings. This summary commented on the overlap of the Interdisciplinary Activities Task Force and the Team Teaching and Faculty Exchange Task Force with the Resource Guide Task Force. Minutes of subsequent meetings of the three task forces reflected a negotiated realignment of task forces with a concomitant change in the definition of goals.

The second document presented (see Example II) is a Progress Analysis Summary dated October 18, 1985, for the Faculty and Community Resources Task Force; its DATA BASE is the minutes of the Team Teaching and Faculty Exchange Task Force and Resource Guide Task Force. The GOAL statements reflect the realignment of the two task forces. The statements tended to become more comprehensive and more closely related to planned activities. The ACTIVITIES proposed by the task force were clearly labeled as planned or completed. The listing of activities was maintained in the planned category until they were complete. Any difficulties encountered in completing the planned activities were noted in the PROBLEM/COMMENTS section.

Issues believed important by the internal evaluator for consideration by a task force were shown in the PROBLEMS/COMMENTS section. In example two, the evaluator requested the task force to respond to a referral from another task force, calling their attention to the request which would have been lost had the minutes of meetings been the only paper trail. This section also enables the evaluator to alert the task force members of their need to affirm goals, define timelines, and clarify and better delineate expected outcomes.

Retrospective Observations

The PAS System seems to have provided a reliable analysis of progress by several PRODD task forces. These analyses were generally seen to be helpful to the PRODD Executive Committee and to individual task forces. The summaries were circulated to all members, keeping them abreast of the overall activities, problems and accomplishments of the Committee as well as the task forces. The PAS system depended on detailed substantive minutes from each task force; reducing the minutes of the Committee and the task forces to the PAS summaries, which required periodic review by the membership; and increased attention of the groups to their expected goals and outcomes. It may be that the monitoring value of the PAS System added little to the monitoring capability inherent in detailed review of task force minutes perhaps by anyone. However, the minutes and other task force documentation would have been less informative if the PAS System had not been imposed.

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Example I
PRODD PROGRESS ANALYSIS SUMMARY (PAS)

April 1, 1985

UNIT: Team Teaching and Faculty Exchange Task Force

DATA BASE: Task Force Minutes of February 11, 1985, and March 27, 1985

GOALS: Exploration of the possibility of realignment of task forces

Identification of broad topics dealing with handicapped for which external expertise is needed.

Identification of faculty and others willing to participate in educational programs or provide sources of instructional materials.

Identification of instructional materials currently available — from faculty and agency sources.

Identification of instructional materials needed but not currently available.

Consideration of the possibility of placing information about speaker and instructional materials on diskettes for distribution.

ACTIVITIES:

Planned —

1 Discuss merger with Resource Guide Task Forces.

Obtain information from interdisciplinary Activities Task Force regarding design of a survey form.

Draft survey instrument.

An article on the Adult Development Center will be prepared for the PRODDER.

A paragraph on Telenet will be prepared for publication.

Completed —

1 Merged Task Force will be called the Faculty and Community Resource Task Force.

Information about the Adult Development Center was obtained.

ACCOMPLISHMENTS:

PROBLEMS/COMMENTS:

Goals at this stage of documentation are all internally oriented, they don't yet speak to what impact the Task Force desires to have on the world external to the Task Force.

Example II

PRODD PROGRESS ANALYSIS SUMMARY (PAS)

October 18, 1985

UNIT: Faculty and Community Resources Task Force

DATA BASE: Task Force minutes February 8 (RG), February 22 (RG), February 11 (T&FE), February 25 (T&FE), **March 27, April 24, 1985***.

GOALS: To identify accessible guides of services and resources in print and computerized.

To identify user procedures.

To attempt to identify need for services not currently available.

To determine how the information can be put into the hands of those who need it.

Identification of broad topics dealing with handicapped for which external expertise is needed.

Identification of faculty and others willing to participate in educational programs or provide sources of instructional materials.

Identification of instructional materials currently available from faculty and agency sources.

Identification of instructional materials needed but not currently available.

Consideration of the possibility of placing information about speaker and instructional materials on diskettes for distribution.

To generate a speaker roster.

To provide a list of agencies with a brief summary of services provided, an address, name of contact person if available, and a telephone number.

To generate a list of instructional materials which will provide a title, brief description and associated cost, if available.

ACTIVITIES:

Planned —

Attend April meeting on marketing of information and referral services.

Work with list of parent and advocacy groups to identify unmet needs.

Obtain listing of individuals administratively involved in education of children with disabilities.

Establish appropriate liaison with DMH and MR project.

Carry out a survey for PRODD topics.

Obtain information from Interdisciplinary Activities Task Force regarding design of a survey form.

Prepare an article on the Adult Development Center for the PRODDer.

1 Draft a survey instrument and accompanying memo.

Plan for distribution of the survey with input from United Way.

Completed —

1 Drafts of survey instrument and accompanying memo were completed and distributed to task force members for review and comment.

The Adult Development Center was described at a task force meeting.

Three new goals (last three listed above) of the task force were established.

Materials available from the Parents Training and Resource Center and the Virginia Chapter of the American Lung Association were listed.

ACCOMPLISHMENTS:

PROBLEMS/COMMENTS:

1. Do the three new goals (last three listed above) replace the preceding nine goals inherited from the pre-merger task forces? If not, some consolidation and prioritization might be in order.
2. Goals at this stage of documentation are all internally oriented; they don't yet speak to what impact the Task Force desires to have on the World external to the Task Force. Each of the three new goals, for example, is directed toward developing information; the goals do not indicate what will be done with that information. Who, for example, will use the speakers roster and how will they learn about it?
3. No timeline for conduct of survey.
4. Does this Task Force plan to produce a comprehensive document on resources?
5. Has this Task Force accepted the referral of the videotape project from the Student Exchange Task Force?
6. No record of meeting since April 24, 1985. I would like to help.

TIMELINE:

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*This PAS focuses on progress as reflected in underlined minutes

Changes in Relationships Among University Programs

JENNIE D. SEATON

After three years of developing an interdisciplinary project such as the Professional Development and Dissemination (PRODD) Project, it is interesting to reflect on other segments of Viriginia Commonwealth University which have been influenced by its presence. The influence can be seen in a variety of areas such as how departmental faculties relate, differences in approaches to developing new activities, response and interest in other activities, etc.

Prior to the PRODD Project, the guest lecturers utilized by instructors of programs preparing students to enter one of the helping professions tended to be practitioners that the faculty had encountered in the community. These included employees of school systems, hospitals, health care centers, and agencies. Rarely, if ever, did University colleagues call on one another. In the third year of the PRODD Project, special education faculty have given lectures to occupational and physical therapy students; physical therapy faculty, to special education and regular education students; and medical school faculty, to education students. A nursing faculty member is taking a component of a physical therapy course. One of the activities of the PRODD Project has been the compilation of a "Faculty and Community Resource Guide." With a ready reference to faculty resource persons, it is anticipated that there will be additional examples of faculty being utilized as guest lecturers.

When the School of Education, Virginia Commonwealth University, began to negotiate with Georgetown University and the U.S. Department of Health and Human Services about submitting a proposal for funding to establish a University Affiliated Program (UAP), a number of individuals in the planning group were involved in the PRODD Project as members of the Management Team or the Executive Committee. The structure of this UAP satellite (Virginia Institute for Developmental Disabilities) provides representation for education, medicine, nursing, occupational therapy, physical therapy, psychology, rehabilitation counseling, social work, and therapeutic recreation — faculty members currently serving as coordinators for four of these areas played active roles in the development of the PRODD Project.

Recently in a joint meeting of individuals associated with the Virginia Institute for Developmental Disabilities and the PRODD Project, the feasibility of organizing an interdisciplinary, credit course for graduate students was discussed. The expected outcome is a course which will be team taught by those participating on the planning committee. The FTE's generated will return to the school of the enrolled student. Planning of such a course was facilitated by the interrelationships which have developed and probably would not have been considered before the PRODD experience.

Another PRODD Project product which will continue to have an influence at Virginia Commonwealth University is the listing of courses offered by various Schools and Departments which are open to nonmajors. The courses were identified by the faculty as being recommended electives for students preparing to enter one of the helping disciplines. This project came out of the **Interdisciplinary Activities Task Force** and was a response to the question "How can the experience of the students be broadened to give them a more comprehensive perspective of the delivery of services to the disabled?"

Another occurrence on campus was a grant proposal for an interdisciplinary training program, submitted by the School of Nursing. The first submission was denied because there were questions about a single school being able to administer an interdisciplinary activity. The proposal was resubmitted through the Virginia Institute for Developmental Disabilities (VIDD, the UAP at VCU) and involved a number of individuals who were active in PRODD and/or the Institute. The project is now in its second year.

The first VCU "Celebration of Teaching"—poster presentations by faculty demonstrating innovative teaching techniques—was held during the spring semester. Six of the presentations were those of individuals who had worked with PRODD and/or VIDD. There were approximately 80 exhibits with both campuses equally represented. The event was planned and promoted by W. Loren Williams, the PRODD Project Evaluator. Although this activity was not related to the PRODD Project, it does demonstrate the interest faculty members have in sharing across discipline lines.

There is also this kind of participation and interest in a Colloquium Series which is co-sponsored by the PRODD Project and VIDD. The Series is designed to provide an interdisciplinary forum for examining issues concerning developmental disabilities. There have been five presentations to date. All presentors were VIDD Discipline or Program Unit Coordinators; three were individuals active in the PRODD Project. Once again, these presentations have attracted faculty and students from both VCU campuses, as well as community practitioners and representatives from agencies.

There are plans for the continuation of some of the activities which were initiated by the PRODD Project. Co-sponsorship of the VIDD Colloquium Series and a PRODD Project Column in the "VIDD Institute News" will continue. A survey of members of the PRODD Management Team indicates support for continuing the Student Symposium and a willingness to participate by making presentations or identifying students for the activities. Finally, a student group has been identified to plan activities for the fall semester, 1986; the process will begin when students return to campus.

Are all of the above activities and plans related to having the PRODD Project here at Virginia Commonwealth University? Somehow, most of us think that these changes in relationships among university programs are a direct outcome of the PRODD Project in "Training Alliances in Health and Education."

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Evaluating TAHE/PRODD As Planned Institutional Change: Reflections and Prospects

DAVID R. SEIBOLD

> *"We think in generalities, we live in detail."*
> *Alfred North Whitehead*

Whitehead's observation aptly captures an important dynamic in planned change efforts, and especially so in the TAHE/PRODD Project. Throughout the three years of the program, PRODD advisory boards and executive teams, ASAHP National Office personnel, local project evaluators, task force members, and especially the PRODD coordinators needed to be able to envision alternate forms in the face of existing environmental, institutional and curriculum structures; to implement conceptual plans and strategies within the realities of complex and entrenched organizational histories and cultures; and simultaneously to find patterns and possibilities in the unanticipated details unfolding before them on a day-to-day basis. The other papers in this volume reflect just how well persons in these roles have managed the generality/detail paradox, as well as all that they have accomplished. In the following sections, I would like to use Whitehead's insight as a touchstone for moving past the "detail" of project activities to "generalities" about project goals, methods, and outcomes. In particular, I wish: (1) to review the logic and aims of the project as a whole; (2) to examine the underlying intervention or "impact model" (Rossi & Freeman, 1985) of planned change embedded in the contract of the three demonstration sites; and (3) to reflect on the utility of that model and prospects for future planned changes in this area.

Project Aims and Intervention Model

The "project update" submitted to OSERS (Office of Special Education and Rehabilitative Services, U.S. Department of Education) at the end of Year I of the TAHE/PRODD Project succinctly summarizes the background and basis for the TAHE initiative:

> The Education for All Handicapped Children Act of 1975 (Public Law 94-142) guarantees all children and youth with handicapping conditions the provision of a free and appropriate education in the least restrictive environment. The nation's ability to achieve the goal depends greatly on the **human fiscal resources** available to meet the special education and related service needs of youngsters with handicapping conditions . . . Funding provided under the authority of PL 94-142 helped prepared related service and special education professionals to meet the new requirements imposed by the law . . . Much has been accomplished within the **separate disciplines:** . . . (p. 15)

TAHE was specifically designed "to move beyond single discipline efforts" (p. 16) in addressing the educaton and education-related needs of children with handicapping conditions. Undergirding the ASAHP grant proposal was a focus on providing "cost-effective **coordination** of health and educational services . . . by providers who view youngsters as whole persons with unique life-long health and education needs" (Abstract). In order to promote interdisciplinary collaboration and improved coordination of services, ASAHP proposed, selected institutions of higher education that **prepare** professionals to serve the education and education-related needs of handicapped children and their families should be provided support **to design model interdisciplinary pre-service training curricula for allied health, regular education, and special education students** that would: (1) promote cross-disciplinary understanding; (2) provide interdisciplinary pre-service training opportunities; (3) encourage students toward later interdisciplinary collaboration; and ultimately (4) both improve service delivery coordination and promote excellence in service quality.

At the heart of TAHE and sequentially organizing developments at each PRODD is an intervention "model"—an implicit developmental schema **assumed** suitable for effecting institutional and curriculum changes in students' pre-service preparation. As depicted in Figure 1, the foundation for change is the external funds supplied by OSERS, the legitimation and logistical support provided by ASAHP, and the context engendered by previous initiatives, such as the Deans' Grants (Step 1) that enable the PRODD Centers to be established at each of the three institutions of higher education (Step 2). While initially vested in the education and allied health deans and the PRODD coordinators, the "start up" mechanics of finding advisory board members and interested faculty for the management teams and task forces during Step 2 are assumed to create an environment in which PRODD visibility is enhanced and, more important, increasing numbers of faculty become involved in the project and/or improve their own interdisciplinary competencies for providing coordinated services to handicapped children (Step 3). The networking, information/resource sharing, and faculty development emanating from the period of increased faculty interaction and cooperation in turn facilitate PRODD members' formal attempts to assess existing curricula (e.g., core competencies survey at NIU) and to begin analyzing institutional structures militating against project objectives (e.g., CSU-F list of "barriers" to institutional change)—Step 4. Sustained analysis of curriculum "gaps" and development of strategies for improving institutional linkages, now within a context of increased PRODD activities and widening faculty involvement, will lead to the curriculum reform (e.g., new interdisciplinary and special topics courses) and institutional changes (e.g., cooperation among clinics and academic units at each institution) at the heart of **improved** pre-service preparation of professionals (Step 5) and to students learning relevant interdisciplinary competencies viz new courses, placement opportunities, special symposia, and the like (Step 6). Following systematic assessment of the effects of these interdisciplinary changes in students' preparation in the presumably improved coordination of services to the handicapped children they will serve (Step 7), each PRODD will be able to formalize a model interdisciplinary pre-service training program (Step 8) and to disseminate materials on a regional and national basis (Step 9). These nine steps were couched within three larger phases, each corresponding to one year of the three-year initiative: **Development, implementation and evaluation**, and **dissemination**.

Figure 1. Intervention Model Underlying TAHE/PRODD Project

Step 1:	External Support, Legitimation, Internal Foundation (OSERS) (ASAHP) (Deans' Grants)
Step 2:	Establish PRODD Organization at Each Institution
Step 3:	Promote PRODD via Increased Faculty Interaction/Involvement
Step 4:	Institutional "Barriers" and Curriculum "Gaps" Assessments
Step 5:	Curriculum Reform and Institutional Change
Step 6:	Students Exposed to Interdisciplinary Competencies
Step 7:	Assess Effects of Pre-Professional Training Changes
Step 8:	Develop Model Interdisciplinary Pre-Service Training Programs
Step 9:	Disseminate Results on Regional and National Basis

Reflections and Prospects

The brief discussion and outline in Figure 1 of the "logic" of planned change underlying the TAHE/PRODD Project is a simplification, of course, and potentially misleading as well. Many more things were expected of each PRODD (and delivered) than the sketch would imply: involvement of "the community" (parents, agencies, advocates outside the university), interaction with other PRODD's and collaboration on related ASAHP initiatives, among others. Furthermore, the "steps" reviewed above should only be taken as an indication of the order in which change and project-related objectives were expected to occur, and not as a lock-step progression of exhaustive and mutually exclusive tasks. Finally, because not all of these steps (or phases) were equally complex, the amount of time and resources committed to each varied considerably, and the number of difficulties experienced in each phase varied significantly. These qualifications withstanding, there still is enough truth to this characterization of the "change model" underlying this federal assistance intervention in higher education curriculum change to ask the following questions: (1) How closely did each PRODD's three-year program mirror the ASAHP change model? (2) What assessment can we make at this time about the prescriptive model in light of what changes actually occurred? (3) What lessons can be learned from these demonstrations that might aid in similar curriculum change efforts in the future?

PRODD Changes. At a general level the events at each PRODD reveal a pattern of developments that is consistent with the prescriptive model of change in the ASAHP proposal. Certainly all three PRODD's drew upon the OSERS support, ASAHP legitimation, and previous Deans' Grant accomplishments (Step 1) to create institutional exposure, interest, and commitment to PRODD objectives, structures, and activities (Step 2). Too, in the process of orienting to the focus of TAHE, faculty with complementary interests were inevitably drawn closer together (Step 3). Indeed, persons on each campus invariably point to new relationships and the strengthening of existing ties among faculty that are primarily a result of PRODD—related networks. At one time or another all three PRODDs assessed curriculum gaps and barriers to better institutional linkages between allied health and education or among clinics on campus; all three PRODD's implicitly or explicitly evolved strategies for responding to those gaps and barriers (Step 4). Various curriculum changes occurred as a result of PRODD efforts, including a new interdisciplinary course at each campus focused on children with disabilities; and at least some institutional linkages were improved on each campus—typically links within allied health school units, between PRODD and related centers, and among clinics on the campuses (Step 5). Students at these institutions were also afforded opportunities for increasing their own interdisciplinary understanding and competencies (Step 6) through: (1) attendance at community conferences and faculty colloquia at which speakers shared their expertise as well as their commitment to interdisciplinary collaboration; (2) planning for and participation in interdisciplinary "symposia" learning experiences each semester; (3) assistance with the administrative activities of the management teams; (4) access to new or more interdisciplinary placements; (5) exposure to audiovisual (e.g., CSU-F slidetape) and written materials (PRODD newsletters); (5) guidance from faculty whose own awareness of the importance of interdisciplinary collaboration was increased through PRODD initiatives; and (7) enrollment in "special topics" seminars and in the new interdisciplinary courses on each campus. Finally, some systematic but limited efforts were made at evaluating the effects of the training opportunity changes (Step 7), and modest dissemination of specific program materials and concepts were occurring toward the end of Year III at all PRODDs (Step 9), though not of the "model interdisciplinary pre-service training programs" originally envisioned (Step 8).

On the other hand, the order in which these steps occurred at each institution, the omission of some steps and relative emphasis placed on others, and the addition of other foci and strategies at each institution suggest three somewhat different and alternative models of change to the ASAHP formulation. For example, even at NIU—where PRODD members followed Steps 1-4 more closely than at either of the other institutions—considerable effort was devoted in Year II and early in Year III to identifying a "core of advocates for institutional change" outside of the PRODD management team and task forces with whom alliances were made in fostering an environment for curriculum reform. And even though PRODD members at this institution had perhaps the most systematic analysis of interdisciplinary curriculum gaps, they (deliberately) took the most time in moving toward Steps 5-6, initiating instead what they had termed in their Year III report as a "nurturing" or "fostering" model for program change at NIU:

> This has been a slow and deliberate process which involved: a) provision of awareness of a need; b) provision of knowledge needed to make change decision; c) participation by a large number of administrators, faculty, staff, and students, each of whom feels ownership toward the activities; and d) continuous and methodical extension of the networking and advocacy system (p 6).

Developments at the other two PRODDs were also sufficiently idiosyncratic as to suggest alternate models of change than the planned change schema embedded in the TAHE proposal. CSU-F went beyond OSERS support, ASAHP legitimation, and the deans' charge to them, by involving "community" members in a very large and active advisory board, which, together with a community conference early in Year I, had a profound effect in broadening the scope of PRODD initiatives, improving community-campus relations, and opening up nearly 75 new placement opportunities for students—process and consequences less likely to have happened if CSU-F had adhered to the more centralized management conception in the TAHE proposal. Similarly, VCU moved beyond a faculty and administrator-dominated PRODD organization by seating community members and students on relevant task forces from the very outset. In part because of the physical distance created by having allied health and education faculty on separate campuses, VCU was forced to confront institutional "barriers" much sooner than the other PRODDs or than the intervention model would have anticipated.

Assessment. Weighed against the interdisciplinary **status quo** at each institution before the creation of the PRODDs, one would have to concur with the enthusiastic endorsements of awareness, interaction, involvement, understanding, cooperation, and commitment occasioned among faculty (and many students and administrators) through the presence and processes of the PRODDs. Measured against specific TAHE objectives of improving and evaluating professionals' pre-service interdisciplinary training with an eye to the development of model curricula for widespread dissemination, however, one would have to say the evidence is inconclusive. This is not to say there is evidence that is inconsistent, but only that "The results aren't in yet." In reality, the amount of start-up and development time needed at each PRODD to lay a foundation for curriculum reform and institutional change left each PRODD only beginning Step 6 toward the end of Year III. Stated differently, structures and opportunities have **now** been put in place for students to improve their interdisciplinary understanding and competencies, but large scale learning will not take place until succeeding years. In turn, evaluation (Step 7), model program development (Step 8), and extensive dissemination (Step 9) will also be delayed.

There are many reasons why the PRODDs seem still headed **toward** accomplishments of TAHE objectives rather than already having achieved them. As indicated, some PRODDs deliberately slowed the change process in order to improve chances for success. Others built a broader base or cast a broader net, strategies that required more time. Each PRODD faced profound institutional obstacles ranging from historical difficulties associated with cooperation across interdisciplinary lines, to problems or pressures within the unit or school sought as a partner in the change process, and the creation of potentially competing interdisciplinary centers at the same institution. Both the education and allied health deans at only one institution were closely and actively involved in PRODD planning from the beginning, enabling that institution to move more quickly through the early steps of the model than the other two institutions. Changes in leadership at two PRODDs and attrition among key members inevitably slowed the process at these PRODDs. Because of the large size and/or turnover in some management teams, it took longer than anticipated to develop a "plan" for accomplishing PRODD objectives. In the absence of a broad vision and specific plan, some PRODDs moved from activity to activity early in the project without sufficient attention to objectives on how the results of these activities would cumulate. Planning came later rather than earlier in the process. Too, increased interaction among faculty frequently led to collaboration on projects only loosely connected to PRODD objectives (e.g., grant proposal preparation). Finally, the amount of financial support provided by the grant was not sufficient to free significant numbers of faculty from other responsibilities; hence any commitments made to PRODD initiatives were typically "overload" arrangements.

Nonetheless, as the other papers in this volume attest, enough positive developments have occurred, and there is sufficient hope for the future of these PRODDs to justify asking whether the TAHE intervention schema contributed to these favorable outcomes, or whether an alternate conception of instructional change might be entertained. Without comparable control institutions, conclusions about the change model underlying the project based on commonalities at the three demonstration sites are tentative. As Orr et al (1971) pointed out: "It is difficult to test hypotheses rigorously in a demonstration; at best, one gets a qualitative feel for the consequences of the single program variant applied, and some idea of the administrative feasibility of the program" (p. 48). The following claims about the TAHE model in Figure 1 seem defensible, however. First, while OSERS funding, ASAHP legitimation, and the Deans' Grant foundation were important enabling conditions for the changes that evolved (Step 1), none of these conditions alone, nor collectively, were sufficient to account for developments at each PRODD. Rather, second changes seemed to depend critically on the character of the PRODD structures which were instituted and especially the commitment and cooperation among the "core" members in each PRODD management team (Step 2). Third, the "steps" outlined in Figure 1 may mask a more fundamental developmental process evident in innovation adoption research, a process that likely was unfolding among individual faculty members at each PRODD: awareness, interest, involvement/evaluation, trial, commitment, and adoption (cf. Biles, 1977). Fourth, while final curriculum modifications all followed some form of needs assessment, it may be erroneous to conclude that such assessments were necessary causal conditions for those changes as previous research would suggest (Lindquist, 1977). Instead, both the project mandate for such curriculum changes and core PRODD members' commitments to interdisciplinary course offerings were probably primary causative factors. The curriculum "assessments" (Step 4) served more to legitimize those changes and to suggest the form they might best take. Fifth, the prescription for promoting faculty interaction and involvement in Step 3 of the change model probably concomitantly engendered a more fundamental climate of interpersonal and inter-unit "adaptation and accommodation" that have been found to be more important than funds, preliminary commitment, and the form of the innovation itself (Berman and McLaughlin, 1985).

Prospects. At the same time, many of the tactics and strategies evolved with each PRODD's change efforts suggest useful amendations to the TAHE model and serve as important lessons to those interested in promoting interdisciplinary curriculum reform at their own institutions for pre-professionals preparing to work with children with disabilities. First, PRODD management team members were not only sensitive to local institutional factors inhibiting change, but recognized those more general characteristics of institutions of higher education that militate against innovation: departmentalization, professional competition, rigid structure, hierarchical linkages, bureacratic procedures, centralized control of resources, strong tradition, and gate-keeping policies. Second, efforts most often were initially directed to fostering collaboration **within** schools of allied health and education before seeing linkages **between** the schools—a lesson sometimes learned through expedience, but a functionally useful one nevertheless. Third, having not only the commitment but the active involvement of both the deans of allied health and the deans of education early in the process moved the process of change along more quickly (although at the risk of reducing some of the broader involvement that might arise through more informal and decentralized management teams).

To these "lessons" and those contained in the preceeding papers, I would add the following ones based on observations of the change process at all three PRODDs. As in many other arenas, "Money talks." Once the glamor of involvement in a "federally-funded" project wore off, project members and administrators realized how much was being accomplished relative to resources available. Not only were potential task force members among the faculty drawn away from PRODDs to similar but more fully-supported projects, but university administrators' attention was often directed toward those areas. Second, since the "core" management team appeared to be so critical to the success of each PRODD, the selection of the PRODD coordinator who builds and nurtures the team was equally crucial. The coordinator's own level of commitment to the project, administrative skills, interpersonal style, and perceived credibility seemed to be important correlates to the amount of progress at each PRODD. Third, because change must be adapted to local circumstances, the change process could be expected to unfold differently as a function of how clearly goals were specified, whether objectives were targeted and focused or disparate, whether the changes attempted proceeded sequentially, and whether a "grass roots" or "top down" orientation was developed. Finally, and embedded within all the previous "lessons," is the realization that intuitively evolved at each PRODD: the targets of change efforts do not so much resist "change" as "being changed." Perspective-taking, information dissemination, continued involvement, shared decision-making and responsibility, and participation in the innovation process all contributed to the success of the initiatives at each PRODD and doubtlessly will form the basis for continuing changes planned by the PRODDs now that they have each been institutionalized as dissemination centers.

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APPENDIX A

CONTEXT FOR GENERIC GUIDELINES FOR ALLIED HEALTH AND EDUCATION

Professionals Who Serve Persons with Disabilities

Synthesized by Catherine Morsink, with statements by Ethan Ellis, Nancy Eggers, Jayn Wittenmyer, Gene Meyer, Tom Barker, Homer Johnson, Judy Anderson, Bernice Stone, and abstracts from the presentations by Carolyn M. Del Polito. (1, 2)

Members of many professions comprising education and allied health[3] come together as teams to serve persons with disabilities. We approach this new task with the same professional commitment that has characterized our past performance—not as advocates for quality **custodial** care, but for intervention which provides the best opportunities to enhance the quality of **life**. We support a common core of competencies for allied health and education professionals who serve children with handicapping conditions, not as an oversimplification of our sameness, but rather as a statement that we have a common purpose in service to this population.

> Numerous recent studies have identified a critical need for an integrated coordinated service delivery system composed of providers who view youngsters with disabilities as whole persons with unique, life-long health and education needs. Similarly, the competition for limited resources at all levels of government demands the maximal appropriate use of all available human and fiscal resources. More than ever, efficient, cost-effective **coordination** of health and education services must be provided. (Del Polito, 1983 p. 3.)

Without such coordination, one's mind can easily conjure up images of a sporting event with doctors, nurses, therapists and other health professionals competing with educators and developmental psychologists. Each team insists the game be played on their field by their rules—impossible conditions for productive, organized competition. When the "game" is determining strategies for the individal education of a child who happens to be disabled, the silliness of the image fades and is replaced by an image of a child being pulled in multiple directions by different types of professionals while bewildered, frustrated parents pace the sidelines (Eggers, 1983).

Obviously, a game plan change is needed. The American Society of Allied Health Professions (ASAHP) is attempting to stimulate and promote the needed change in service delivery to youngsters with handicapping conditions and their families. Through funding from the U.S. Department of Education's Office of Special Education and Rehabilitative Services, ASAHP, in conjunction with three member institutions of higher education,[5] is designing model interdisciplinary pre-service training curricula for allied health and education students to better prepare these professionals to serve children with handicapping conditions and their families. ASAHP believes efforts to improve professional collaboration in the provision of education and education-related health services to children with handicapping conditions should incorporate the development of collaborative relationships at the pre-service level among allied health professionals, regular educators, and special educators. It is the intent of the project that the collaborative experiences at the pre-service level will encourage students to continue to pursue collaborative efforts in the provision of education and health services to children with handicapping conditions once they become professional service providers in their respective fields.

The basis for the planned curricula change is the attached list of generic guidelines developed by project participants. These generic guidelines provide a framework for evaluating existing courses and identifying any curricula gaps for allied health, regular education, and special education personnel preparation programs focusing on the needs of children and youth with handicapping conditions.

RECOGNITION OF DIFFERENCES

Implicit within our support for generic guidelines is the acknowledgement of the wide variations which separate the disciplines. The allied health professions are not one, but many; their common title does not infer commonality in training or in mission. Some specialities within allied health, such as medical technology and hospital administration, have roles which are tangential to direct patient care. In like manner, education subsumes professions which specialize in teaching learners at different age levels, with different abilities, in different academic subject areas, and in indirect instructional roles such as counseling, administration, or psychology.

The knowledge base is different for each specialty, leading sometimes to "territoriality," and causing professionals to spend valuable time and energy explaining definitions and resolving differences. A common core of curriculum is unlikely because of the magnitude of these differences, yet agreement on the underlying principles and core competencies on which the various curricula are based is both possible and necessary.

Education and allied health professionals approach the task of serving persons with disabilities from different perspectives. The assumptions of allied health are more nearly related to treatment of patients requiring acute health care, while those of education are based on the provision of developmental instruction. While allied health is more often involved in intervention and remediation; education is more likely to be part of the continuing support system which fosters learning. While education's parameters are more nearly cognitive and social, those of allied health are more related to physical aspects of the client's disability.

While educators are prepared to serve in institutions which are free and public, health services personnel are trained to function in environments with services supported by users or third parties. Educators are trained to work with small or large groups of students, but allied health professionals nearly always serve clients one-to-one. These differences magnify the difficulties of providing collaborative training across colleges and universities and need to be acknowledged in the design of new programs.

At the public school level, education and allied health professionals have different needs for professional development. While professional advancement within the education profession is related to course credits and degrees, health professionals have specific, treatment-related need for continuing education and credentials. It is important to recognize these differences. Allied health personnel in school settings should design professional development programs and plans for merit and advancement which are congruent with their needs, just as education personnel pursue advancement which is adapted to their professional goals.

VALUE OF SPECIALIZED CONTRIBUTIONS

We recognize and value the contributions of each individual specialty to the total service plan of the person with a disability.

We value the contributions of the physical therapist, a link between education and medicine by virtue of understanding the medical problems while also recognizing the importance of movement in learning. The physical therapist intervenes at the point when the education system can no longer stand by itself—when the client is unable to move, when there is discontinuity in the normal growth process, when there are physical rather than cognitive barriers to learning. This role is important throughout the life of a person with a disability. For infants, the therapist can effect changes in potential for development, through good therapy and intervention, since the young child is adaptable even with severe damage. With preschool and young children, the therapist can intervene to prevent irreversible change. During the school years, the physical therapist can help the teacher to provide carry-over and generalization activities in the classroom, and can make the learning environment more conducive to learning by assisting with correct positioning or use of adaptive equipment.

We value the contributions of the speech-language pathologist, whose role is to help students with communications disorders. The speech-language pathologist has expertise in assessment and remediation of expressive and receptive communication disabilities. This professional provides a rehabilitation program in communication which is the foundation for all language-related learning. The speech-language pathologist interprets the communication process to teachers, other professionals, parents, and students with disabilities. The importance of the speech-language pathologist's role is magnified when clients or their families are non-English speaking or bilingual; the speech-language pathologist must help other members of the team to understand the language-related differences in perceptions of clients and their families.

We value the contributions of the occupational therapist whose role is to facilitate, promote, and maintain optimum independence of the student through adaptive skills and effective functioning in the school and social environments. The occupational therapist, utilizing a medical knowledge base, evaluates and plans goal-directed, developmentally-sequenced activities as treatment for the correction of perceptual, sensory, psycho-social, motor or self-care deficits. Similar to the role of the physical therapist, the occupational therapist's role is important throughout the life-span of the person with a disability. Early intervention is clearly a high priority to prevent initial or further impairment or loss of function due to a disabling condition.

We value the contributions of the school psychologist for the unique services offered in the assessment, developmental screening, counseling, and planned intervention modalities for the child with a handicapping condition.

We value the contributions of the school social worker who provides a vital link between the school system and the larger social-welfare system to children with handicapping conditions and their families.

We value the contributions of the many other related health professionals, such as school nurses, recreational therapists, audiologists, and others involved in the provision of related services to children with handicapping conditions, for the significant impact they make on the lives of these children, and for the meaningful contribution they make to the educational system in the provision of quality services to children with handicapping conditions and their families.

We value the contributions of the special educator, who understands the relationship between the student's physical and mental disabilities and the implications for learning. The special educator is a professional who has a unique opportunity to coordinate and promote the roles of parents, administrators, and human service professionals in meeting the developmental needs of the child with handicapping conditions.

We value the contributions of parents, who understand their child's uniqueness and his/her relationship to family interactions in ways which professionals can never see. We respect the opinions of parents who, unlike professionals, bear lifelong responsibility for their children. As such, they serve as eternal advocates for the lives they have created. We understand that their persistent efforts on behalf of their children are rooted in their deep commitment to try any treatment, to seek any solution which may enhance the quality of their child's life. We understand that parents and older clients come to the service delivery system with great pain and agony about being treated, and we reaffirm our professionalism in our empathic and positive responses to these realities.

We value the contributions of persons with disabilities who share with us the responsibility for their treatment. We believe it is important to include these "consumers" in understanding why particular methods and modalities are being used so they may share as active participants in their therapy and education. We also believe that it is important to encourage clients who are mature and able to actively participate and decide on aspects of their treatment which affect their lives.

IMPORTANCE OF COLLABORATION

We recognize that these professional roles are complimentary and that trans-disciplinary collaboration is essential in team activity.

Professional interactions require participants to be able to express their ideas in simple, direct language and to be able to listen to opposing viewpoints. Professionals who serve the same youngster need to view specialists in their respective areas so that all are equals, rather than some experts and other "laypersons" (i.e., parents know best how their children developed and how they react in the home environment; classroom teachers are the specialists on educational methods and behavior in the classroom; psychologists are the experts on the interpretation of tests, etc.).

Team members need to be able to engage in planning with others. Planning should focus on the assessment, development, implementation, evaluation, and revision of the individual student's instructional program, and the relationship of that program to the general curriculum and the post-school demands placed on the student by society. All professionals need to be able to serve as consultants to co-workers in cases in which their special expertise is needed. Team members will need to know how to collaborate with colleagues who share responsibility for an individual student's program. They need to know how to negotiate with others when their goals, values, philosophies, or priorities differ.

We understand, as professionals with a mutual mission, the importance of using langauge which facilitates understanding and, when possible, to use a common language which is understood by all participants. Yet, we acknowledge that language should allow us to express adequately the knowledge of each discipline. In this sense, our language needs to be precise to make distinctions which may not be possible with different sets of words. For example, we may need to describe the neurological function and dysfunction in order to adequately design a treatment program. Thus, one set of words may describe the level of the disability, while another describes more appropriately the function and potential. With permission to use special language, however, comes the obligation to explain—not only why it is being used but also the results of using it. We understand, also, that language differences are magnified in home environments: parents may use words to describe the child's deviation from cultural norms which differ from the standards assumed by the professional to be universal.

We believe, in our explanation of the nature of disabilities, it is important to explain the person's general characteristics, ranges of function, and specific levels of functioning. It may be important to describe the signs or characteristics which define a syndrome and the limitations in terms of function which are related to that syndrome. We also understand, in defining a person' syndrome, it is important to emphasize each individual is different from all others with the same set of characteristics, and each individual has both abilities and disabilities. Finally, we wish to emphasize that any description of a person's level of functioning is descriptive of performance at a certain point in time, and should not be interpreted as a definitive ceiling on future performance.

We recognize the critical importance of common clinical "team" experiences to meet the needs of clients in the school or community. In such terms, each profession contributes according to its own expertise while recognizing the importance of the expertise of other disciplines. This integrated service experience can provide us all with a broader knowledge base which can enhance our own contributions. In this "capstone" experience, we who are seasoned professionals may function on the team to model these activities for our students in training. A new model which emphasizes interdisciplinary and collaborative training and practice programs is needed if youngsters with disabilities are to be served equitably and effectively in our school systems.

The following guidelines for curricula development, which have been developed, reviewed, and evaluated by practitioners and educators in allied health, speical education, and regular education across the country are recommended as generic, essential prerequisites for all providers of services to persons with disabilities:

GENERIC GUIDELINES FOR PROVIDERS OF SERVICES TO PERSONS WITH DISABILITIES

1. Roles and Responsibilities Related to Legal and Regulatory Issues

- To understand and maintain state-of-the-art knowledge on State and Federal legislation in order to assist families in solving problems related to the child/youth's condition; that is:

    1. To facilitate the provision of appropriate services for the youngster with a handicapping condition;
    2. To facilitate parents' understanding of case management procedures for the child/youth;
    3. To facilitate identification of an appropriate case manager for the youngster;
    4. To recognize and provide accurate information to parents;
    5. To assist parents in understanding their legal rights, gaining access to legislative services;
    6. To assist parents in defining and accepting their roles and rights;
    7. To promote self-advocacy skills among youngsters and parents; and
    8. To effect changes in legislation through professional advocacy roles and active involvement in professional organizations.

2. Roles and Responsibilities Related to Societal and Professional Attitudes

1. To recognize and accept the needs and rights of disabled youngsters and their families;
2. To recognize the need to be sensitive to and understand the influence of cultural differences in the identification, assessment, referral, and treatment processes;
3. To recognize the prevalent forms of prejudice, stereotyping, and tokenism, and understand how myths and stereotypes contribute to the devaluation of people with disabling conditions;
4. To assist children with handicapping conditions and their families to define their own attitudes and values and identify their own strengths and creativity; and

5. To develop ongoing psychosocial services to enable persons with disabilities to promote self-acceptance and the ability to develop to their maximum potential.

3. Roles and Responsibilities Related to Professional Practice: General

- To provide effective and competent services for which one is trained; that is:
    1. To recognize the indicators of handicapping conditions for severe, mild, moderate, and high-risk children and youth;
    2. To provide appropriate screening programs so as to identify children and youth with possible disabilities and make appropriate referral for assessments;
    3. To provide appropriate assessments of individuals with disabilities; and
    4. To participate in the interdisciplinary planning, design, and implementation of programs for individuals with disabilities as appropriate to one's professional concern and practice.
- To understand, implement, and promote methods for identifying appropriate referral sources.
- To maintain accurate records of assessments, treatments, and progress.
- To maintain and use current technologies to share information about clients and their conditions (e.g., computer networks).
- To understand the effects of current treatments on the future performance of the client and to communicate this understanding to parents and clients.
- To educate one's self, parents, colleagues, employers, and communities about the needs and rights of individuals with disabilities and their families and the roles the various professionals perform in providing services.
- To promote and maintain a collaborative, interdisciplinary team approach in the provision of services to children with handicapping conditions and their families and to acknowledge the primary role of the child, parents, and families as an integral component of the team.
- To disseminate accurate information to parents, families, and the public concerning:

    1. the nature of disabling conditions, in a manner congruent with an interdisciplinary service model;
    2. the needs and rights of individuals with disabilities;
    3. the roles health, education, and medical professionals assume in the rehabilitation of individuals with disabilities;
    4. the qualifications for providing services; and
    5. the need for ongoing support within the home and community environment.

- To promote excellence in the quality of service delivery (both technical and ethical competence) among one's own and others' professions (e.g., develop peer review systems; eliminate time constraints and scheduling barriers, etc.).
- To recognize the need for and participate in activities that will ensure continued professional growth and competency, that is:
    1. To participate actively in one's professional organization;
    2. To advocate for the needs of individuals with disabilities and their families within one's profession;
    3. To participate in various activities that will facilitate continued growth of professional knowledge; and
    4. To promote appropriate interdisciplinary training of health and education professionals so as to meet the needs of and ensure the rights of individuals with disabilities and their families.

4. Roles and Responsibilities Related to Professional Practice: Coordination

- To help coordinate efforts of health, education, and related services; that is:
    1. To understand other health, education, and related services professionals' roles;
    2. To share knowledge of current techniques and work cooperatively with other professionals concerned with the services provided for children and youth;
    3. To be sensitive to and actively participate in coordinated and adaptive health-care planning for the life span of the youngster; (i.e., to participate in interdisciplinary program planning and implementation processes, using a common language to write objectives, prioritize treatments, and document assessments and progress for youngsters' individualized programs that facilitate understanding by parents and families.);

4. To promote interdisciplinary pre-service training opportunities (e.g., shared curricula and field experiences);
5. To promote and, as appropriate, conduct research which will add to the current knowledge base;
6. To read and publish in the journals of other disciplines;
7. To help develop effective alliances between various professional organizations and existing parent and consumer coalitions to promote the needs and rights of youngsters with disabilities; and
8. to advocate for funding from appropriate local, state, and federal agencies to train health professionals.

- To help develop and provide cost-effective programs and services.
- To identify and help implement creative approaches to funding programs for persons with disabilities (including community and corporate resources and consultants).
- To improve existing approaches to the delivery of health and education services through research and dissemination.

5. Roles and Responsibilities Related to Professional Practice: Advocacy

- To understand and be able to explain the dimensions and limitations of personal and professional advocacy and its intimate relationship with appropriate identification and referral procedures.
- To promote advocacy initiatives on behalf of youngsters with disabilities with other professionals.
- To promote and advocate for prevention of disabling conditions (e.g., pre-natal care; genetic counseling, etc.).
- To assist in consumer/client and parent involvement in advocacy efforts.
- To exert pressure for enforcement of existing laws at local, state, and federal levels.
- To promote regulation, legislation, and litigation on behalf of youngsters with disabilities and their families. As it relates positively to the health and education needs of individuals with disabilities.
- To understand the political process and the implications of advocacy within one's work setting, community, state, and professional organizations.

- To help establish and maintain geographical networks to promote access to services in underserved areas (e.g., transportation networks, rural service delivery networks, etc.).
- To help develop and/or modify education standards to create access rather than barriers to individuals with disabilities who wish to enter the health, education, and medical professions.

. Roles and Responsibilities Related to Communication

- To communicate effectively with individuals who have disabling conditions and their families; that is:
    1. To present information clearly and listen actively to individuals with disabilities and their families;
    2. To adapt messages according to the needs of the individual with a disability and his/her family;
    3. To use appropriate problem-solving, assessment, and observational techniques, including effective verbal and nonverbal listening behaviors for identification and referral of youngsters with special needs;
    4. To adapt to the verbal and nonverbal cues which indicate concerns or problems related to the handicapping condition, whether expressed by parents, siblings, or the youngster with a disability; and
    5. To establish and maintain effective relationships which exhibit sensitivity to, respect for, and trust and cooperation with youngsters and their families.
- To facilitate and effect appropriate interprofessional communication; that is:
    1. To evaluate the role of communication in the service delivery process; and
    2. To develop and maintain effective teaming, negotiating, and consulting skills in interactions with colleagues, supervisors, parents, as well as with other professionals in health and education who are concerned with meeting the needs and rights of all youngsters.
    - To facilitate and effect appropriate inter and intra-agency communication.
    - To facilitate and effect appropriate communication with and among pre-service and in-service training programs in allied health, and special education, and regular education.
    - To facilitate and effect appropriate communication with and between various state and/or federal agencies and governing bodies.

END NOTES

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[1] Contributors include: Catherine Morsink, Ph.D., University of Florida; Ethan Ellis, Deputy Director, Department of the Public Advocate, State of New Jesey; Nancy Eggers, M.A., RPT, Northern Illinois University; Jayn Wittenmyer, Executive Director, Wisconsin Council on Developmental Disabilities; R. Gene Meyer, Northern Illinois University; Thomas Barker, Ph.D., Dean, School of Allied Health Professions, Virginia Commonwealth University; Homer Johnson, Ph.D., Dean, School of Education and Human Development, California State University at Fresno; Judith Anderson, M.A., University of Northern Illinois; Bernice Stone, Ed.D., California State University at Fresno; Howard Garner, Ed.D. Virginia Commonwealth University; Carolyn M. Del Polito, Ph.D., Executive Director, the American Society of Allied Health Professions; and Bonnie Gillman Simon, Director, Mayor's Office for the Handicapped, Philadelphia, PA.

[2] Del Polito, Carolyn and Barresi, Josephine (eds.) *Alliances in Health and Education.* (Washington, DC: The American Society of Allied Health Professions, 1983.)

[3] The term "Allied Health Professional" means an individual trained at the associate, baccalaureate, certificate, master's or doctoral degree level in a health care related science, with responsibility for the delivery of health care or health care related services (including services related to the identification, evaluation and prevention of diseases and disorders, dietary and nutrition services, health promotion, rehablitation, and health systems management), but who are not graduates of schools of medicine, optometry, podiatry, pharmacy, or nursing.

[4] Eggers, Nancy. Tapped conversation with Catherine Morsink, November, 1983, Philadelphia, Pennsylvania.

[5] The three member institutions of higher education participating in ASAHP's "Training Alliances in Health and Education" grant project include: California State University—Fresno, Northern Illinois University, and Virginia Commonwealth University. Each of thse Universities is participating as a Professional Development and Dissemination (PRODD) Center under the leadership of the Dean/Director of Allied Health and with the cooperation of the Schools/Programs of Teacher Education.

APPENDIX B

Program ____________

Course ____________

Instructor ____________

Competencies for Professionals Working with Children Having Handicapping Conditions*

(Assessment of Emphasis on Competencies)

DIRECTIONS: For each of the competencies listed below, please do two things. First, indicate whether you give the competency No emphasis (NONE), Some emphasis (SOME), or Great emphasis (GREAT) in your course. Then indicate whether you formally evaluate acquisition of that competency. Circle only one number in each column.

COMPETENCY	EMPHASIS ON COMPETENCY			FORMALLY EVALUATED	
I. Roles and Responsibilities Related to LEGAL AND REGULATORY ISSUES	NONE	SOME	GREAT	YES	NO
A. Facilitate the provision of appropriate services for youngsters with handicapping conditions.	1	2	3	1	2
B. Facilitate parents' understanding of case management or educational programming for the child/youth.	1	2	3	1	2
C. Facilitate identification of an appropriate case management or educational manager for the youngster.	1	2	3	1	2
D. Provide accurate information to parents.	1	2	3	1	2
E. Assist parents in understanding their legal rights.	1	2	3	1	2

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*This assessment was developed by Northern Illinois University as an adaptation of the "Generic Guidelines for Providers of Services to Persons with Disabilities," a product of "Training Alliances in Health and Education," a grant project of the American Society of Allied Health Professions, 1983-86.

COMPETENCY	EMPHASIS ON COMPETENCY			FORMALLY EVALUATED	
	NONE	SOME	GREAT	YES	NO
F. Assist parents in defining and accepting their roles and rights.	1	2	3	1	2
G. Promote self-advocacy skills among youngsters and parents.	1	2	3	1	2
II. Roles and responsibilities related to SOCIETAL AND PROFESSIONAL ATTITUDES.					
A. Recognize and accept the needs and rights of disabled children/youth.	1	2	3	1	2
B. Recognize the need to be sensitive to and understand the influence of cultural differences in the identification, referral, and treatment processes.	1	2	3	1	2
C. Recognize the prevalent forms of prejudice, stereotyping, and tokenism.	1	2	3	1	2
D. Understand how myths and stereotypes contribute to the devaluation of people with disabling conditions.	1	2	3	1	2
III. Roles and responsibilities related to PROFESSIONAL PRACTICE: GENERAL					
A. To provide effective and competent services for which one is trained:					
1. Recognize the indicators of handicapping conditions;	1	2	3	1	2
2. Provide appropriate screening programs for identification;	1	2	3	1	2
3. Provide appropriate assessments of individuals with disabilities;	1	2	3	1	2
4. Participate in the planning, design, and implementation of programs for individuals with disabilities as appropriate to one's professional concern and practice.	1	2	3	1	2
B. To understand, implement, and promote methods for identifying appropriate referral sources.	1	2	3	1	2
C. To maintain accurate records of assessments, treatments, and progress.	1	2	3	1	2

COMPETENCY	EMPHASIS ON COMPETENCY			FORMALLY EVALUATED	
	NONE	SOME	GREAT	YES	NO
D. To maintain the use of current technologies to share information about youngsters and their conditions (e.g., computer networks).	1	2	3	1	2
E. To understand the effects of current treatments on future performance of the youngsters and to communicate this to parents and children.	1	2	3	1	2
F. To educate parents, colleagues, employers, and communities about the needs and rights of individuals with disabilities and their families and the roles the professionals perform in providing services.	1	2	3	1	2
G. To disseminate accurate information to parents, families, and the public concerning:					
1. The nature of disabling conditions;	1	2	3	1	2
2. The needs and rights of individuals with disabilities;	1	2	3	1	2
3. The roles health, education, and medical professionals assume in the rehabilitation of individuals with disabilities, and	1	2	3	1	2
4. The qualifications for providing services.	1	2	3	1	2
H. To promote excellence in the quality of service delivery (both technical and ethical competence) among one's own and others' professions (e.g., develop peer review systems; eliminate time constraints and scheduling barriers, etc.).	1	2	3	1	2
I. To practice in activities that ensure continued professional growth and competency, that is:					
1. Participate actively in one's professional organization;	1	2	3	1	2
2. Advocate for the needs of individuals with disabilities and their families within one's profession;	1	2	3	1	2

COMPETENCY	EMPHASIS ON COMPETENCY			FORMALLY EVALUATED	
	NONE	SOME	GREAT	YES	NO
3. Participate in various activities that will facilitate continued growth of professional knowledge; and	1	2	3	1	2
4. Promote interdisciplinary training of health and education professionals.	1	2	3	1	2
IV. Roles and responsibilities related to PROFESSIONAL PRACTICE: COORDINATION					
A. To assist with the coordination of efforts of health, education, and related services, that is:					
1. Understand the roles of other health, education, and related services professionals;	1	2	3	1	2
2. Share knowledge of current techniques and work cooperatively with other professionals;	1	2	3	1	2
3. Actively participate in coordinated and adaptive health-care planning for the life span of the youngsters (e.g., interdisciplinary program planning and implementation, use of common langague to write objectives, prioritize treatments, and document assessments and progress for youngsters' individualized programs);	1	2	3	1	2
4. Promote interdisciplinary preservice opportunities (e.g., shared curricula and field experiences);	1	2	3	1	2
5. Promote and conduct research which will add to the current knowledge base;	1	2	3	1	2
6. Publish in journals of other disciplines;	1	2	3	1	2
7. Develop effective alliances between various professional organizations and existing parent and consumer coalitions;	1	2	3	1	2

COMPETENCY	EMPHASIS ON COMPETENCY			FORMALLY EVALUATED	
	NONE	SOME	GREAT	YES	NO
8. Advocate for funding from local, state, and federal agencies to train health professionals.	1	2	3	1	2
B. To assist with development and provision of cost-effective programs and services.	1	2	3	1	2
C. To assist with implementation of creative approaches to funding programs for persons with disabilities (including community and business resources and consultants).	1	2	3	1	2
D. To improve existing approaches to delivery of health and education services through research and dissemination.	1	2	3	1	2
V. Roles and responsibilities related to PROFESSIONAL PRACTICE: ADVOCACY					
A. To promote advocacy initiatives on behalf of youngsters with disabilities.	1	2	3	1	2
B. To promote and advocate for prevention of disabling conditions (e.g., pre-natal care, genetic counseling, etc.).	1	2	3	1	2
C. To understand and communicate the dimensions of advocacy and its relationshp with identification and referral procedures.	1	2	3	1	2
D. To assist in consumer/client and parent involvement in advocacy efforts.	1	2	3	1	2
E. To advocate for enforcement of existing laws at local, state, and federal levels.	1	2	3	1	2
F. To promote regulation, legislation, and litigation on behalf of youngsters with disabilities and their families.	1	2	3	1	2
G. To understand the political process and implications of advocacy within one's work setting, community, state, and professional organization.	1	2	3	1	2

COMPETENCY	EMPHASIS ON COMPETENCY			FORMALLY EVALUATED	
	NONE	SOME	GREAT	YES	NO
H. To assist in establishment and maintenance of geographical network to promote access to services in underserved areas (e.g., transportation networks, rural service delivery networks, etc.).	1	2	3	1	2
I. To assist with development and/or modifications of educational standards to create access to individuals with disabilities who wish to enter the health, education, and medical professions.	1	2	3	1	2
VI. Roles and responsibilities related to COMMUNICATION.					
A. To communicate effectively with individuals who have disabling conditions and with their families; that is:	1	2	3	1	2
1. Present information clearly and listen actively to individuals with disabilities and their families;					
2. Adapt messages according to the needs of the individual with a disability;	1	2	3	1	2
3. Use appropriate problem-solving, assessment, and observational techniques, including effective verbal and nonverbal listening behaviors;	1	2	3	1	2
4. Adapt to verbal and nonverbal cues which indicate concerns or problems related to a handicapping condition;	1	2	3	1	2
5. Establish and maintain effective relationships characterized by sensitivity to, respect for, and the trust and cooperation with youngsters and their families.	1	2	3	1	2
B. To facilitate appropriate interprofessional communication; that is:					
1. Understand the role of communication in the service delivery process;	1	2	3	1	2

COMPETENCY	EMPHASIS ON COMPETENCY			FORMALLY EVALUATED	
	NONE	SOME	GREAT	YES	NO
2. Develop and maintain effective teaming, negotiating, and consulting skills in interactions with colleagues, supervisors, parents, as well as with other professionals in health and education.	1	2	3	1	2
C. To facilitate appropriate inter- and intra-agency communication.	1	2	3	1	2
D. To facilitate communication among university/college training programs in allied health, special education, and regular education.	1	2	3	1	2
E. To facilitate communication between various state and/or federal agencies and governing bodies.	1	2	3	1	2

Thank you for completing this survey. If, however, your course does not emphasize the competencies listed above, how does the course contribute to the understanding of them?

In your teaching of competencies listed in the assessment you may have used movies, articles, journals and books as resource material for yourself or for your students. Please list below the materials which you feel are especially good tools for teaching these competencies to pre-professional students who will be working with persons with handicapping conditions. The resources you identify will be incorporated in a compilation of such materials and will be made available to you.

	TITLE	VENDOR/PUBLISHER
Movies		
Video Tapes		
Journals		
Articles		
Books		
Other Materials		

Program ____________

Year of Graduation ____________

Instructor ____________

Assessment of Preparation for PRODD Competencies*

(Through Academic Program)

DIRECTIONS: Please consider whether you have encountered a situation this year which required you to use a competency listed below. Circle 1 for Yes or 2 for No. If you answered yes, please indicate whether you were Not Prepared (NP), Somewhat Prepared (SP) or Very Well Prepared (VP) by your academic program to exhibit that competency.

COMPETENCY	HAVE USED		WAS PREPARED		
I. Roles and Responsibilities Related to LEGAL AND REGULATORY ISSUES	YES	NO	NP	SP	VP
A. Facilitate the provision of appropriate services for youngsters with handicapping conditions.	1	2	1	2	3
B. Facilitate parents' understanding of case management or educational programming for the child/youth.	1	2	1	2	3
C. Facilitate identification of an appropriate case management or educational manager for the youngster.	1	2	1	2	3
D. Provide accurate information to parents.	1	2	1	2	3
E. Assist parents in understanding their legal rights.	1	2	1	2	3
F. Assist parents in defining and accepting their roles and rights.	1	2	1	2	3
G. Promote self-advocacy skills among youngsters and parents.	1	2	1	2	3

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*This Assessment was developed by Northern Illinois University as an adaptation of the "Generic Guidelines for Providers of Services to Persons with Disabilities," a product of "Training Alliances in Health and Education," a grant project of the American Society of Allied Health Professions, 1983-86.

COMPETENCY	HAVE USED		WAS PREPARED		
	YES	NO	NP	SP	VP
II. Roles and responsibilities related to SOCIETAL AND PROFESSIONAL ATTITUDES					
A. Recognize and accept the needs and rights of disabled children/youth	1	2	1	2	3
B. Recognize the need to be sensitive to and understand the influence of cultural differences in the identification, referral, and treatment processes	1	2	1	2	3
C. Recognize the prevalent forms of prejudice, stereotyping, and tokenism	1	2	1	2	3
D. Understand how myths and stereotypes contribute to the devaluation of people with disabling conditions	1	2	1	2	3
III. Roles and responsibilities related to PROFESSIONAL PRACTICE: GENERAL					
A. To provide effective and competent services for which one is trained					
1. Recognize the indicators of handicapping conditions	1	2	1	2	3
2. Provide appropriate screening programs for identification	1	2	1	2	3
3. Provide appropriate assessments of individuals with disabilities	1	2	1	2	3
4. Participate in the planning, design, and implementation of programs for individuals with disabilities as appropriate to one's professional concern and practice	1	2	1	2	3
B. To understand, implement, and promote methods for identifying appropriate referral sources	1	2	1	2	3
C. To maintain accurate records of assessments, treatments, and progress	1	2	1	2	3
D. To maintain the use of current technologies to share information about youngsters and their conditions (e.g., computer networks)	1	2	1	2	3
E. To understand the effects of current treatments on future performance of the youngsters and to communicate this to parents and children	1	2	1	2	3

COMPETENCY	HAVE USED		WAS PREPARED		
	YES	NO	NP	SP	VP
F. To educate parents, colleagues, employers, and communities about the needs and rights of individuals with disabilities and their families and the roles the professionals perform in providing services.	1	2	1	2	3
G. To disseminate accurate information to parents, families, and the public concerning:					
1. The nature of disabling conditions;	1	2	1	2	3
2. The needs and rights of individuals with disabilities;	1	2	1	2	3
3. The roles health, education, and medical professionals assume in the rehabilitation of individuals with disabilities; and	1	2	1	2	3
4. The qualifications for providing services.	1	2	1	2	3
H. To promote excellence in the quality of service delivery (both technical and ethical competence) among one's own and others' professions (e.g., develop peer review systems; eliminate time constraints and scheduling barriers, etc.).	1	2	1	2	3
I. To practice in activities that ensure continued professional growth and competency, that is:					
1. Participate actively in one's professional organization;	1	2	1	2	3
2. Advocate for the needs of individuals with disabilities and their families within one's profession;	1	2	1	2	3
3. Participate in various activities that will facilitate continued growth of professional knowledge; and	1	2	1	2	3
4. Promote interdisciplinary training of health and education professionals.	1	2	1	2	3
IV. Roles and responsibilities related to PROFESSIONAL PRACTICE: COORDINATION					
A. To assist with the coordination of efforts of health, education, and related services, that is:					
1. Understand the roles of other health, education, and related services professionals;	1	2	1	2	3

COMPETENCY	HAVE USED		WAS PREPARED		
	YES	NO	NP	SP	VP
2. Share knowledge of current techniques and work cooperatively with other professionals;	1	2	1	2	3
3. Actively participate in coordinated and adaptive health-care planning for the life span of the youngsters (e.g., interdisciplinary program planning and implementation, use of common language to write objectives, prioritize treatments, and document assessments and progress for youngsters' individualized program);	1	2	1	2	3
4. Promote interdisciplinary pre-service opportunities (e.g., shared curricula and field experiences);	1	2	1	2	3
5. Promote and conduct research which will add to the current knowledge base;	1	2	1	2	3
6. Publish in journals of other disciplines;	1	2	1	2	3
7. Develop effective alliances between various professional organizations and existing parent and consumer coalitions;	1	2	1	2	3
8. Advocate for funding from local, state, and federal agencies to train health professionals.	1	2	1	2	3
B. To assist with development and provision of cost-effective programs and services.	1	2	1	2	3
C. To assist with implementation of creative approaches to funding programs for persons with disabilities (including community and business resources and consultants);	1	2	1	2	3
D. To improve existing approaches to delivery of health and education services through research and dissemination.	1	2	1	2	3
V. Roles and responsibilities related to PROFESSIONAL PRACTICE: ADVOCACY					
A. To promote advocacy initiatives on behalf of youngsters with disabilities.	1	2	1	2	3
B. To promote and advocate for prevention of disabling conditions (e.g., pre-natal care, genetic counseling, etc.).	1	2	1	2	3

COMPETENCY	HAVE USED		WAS PREPARED		
	YES	NO	NP	SP	VP
C. To understand and communicate the dimensions of advocacy and its relationship with identification and referral procedures.	1	2	1	2	3
D. To assist in consumer/client and parent involvement in advocacy efforts.	1	2	1	2	3
E. To advocate for enforcement of existing laws at local, state, and federal levels.	1	2	1	2	3
F. To promote regulation, legislation, and litigation on behalf of youngsters with disabilities and their families.	1	2	1	2	3
G. To understand the political process and implications of advocacy within one's work setting, community, state, and professional organization.	1	2	1	2	3
H. To assist in establishment and maintenance of geographical network to promote access to services in underserved areas (e.g., transportation networks, rural service delivery networks, etc.).	1	2	1	2	3
I. To assist with development and/or modifications of educational standards to create access to individuals with disabilities who wish to enter the health, education, and medical professions.	1	2	1	2	3
VI. Roles and responsibilities related to COMMUNICATION.					
A. To communicate effectively with individuals who have disabling conditions and with their families; that is:	1	2	1	2	3
1. Present information clearly and listen actively to individuals with disabilities and their families;					
2. Adapt messages according to the needs of the individual with a disability;	1	2	1	2	3
3. Use appropriate problem-solving, assessment, and observational techniques, including effective verbal and nonverbal listening behaviors;	1	2	1	2	3
4. Adapt to verbal and nonverbal cues which indicate concerns or problems related to a handicapping condition;	1	2	1	2	3

COMPETENCY	HAVE USED		WAS PREPARED		
	YES	NO	NP	SP	VP
5. Establish and maintain effective relationships characterized by sensitivity to, respect for, and the trust and cooperation with youngsters and their families.	1	2	1	2	3
B. To facilitate appropriate interprofessional communication; that is:					
1. Understand the role of communication in the service delivery process;	1	2	1	2	3
2. Develop and maintain effective teaming, negotiating, and consulting skills in interactions with colleagues, supervisors, parents, as well as with other professionals in health and education.	1	2	1	2	3
C. To facilitate appropriate inter- and intra-agency communication.	1	2	1	2	3
D. To facilitate communication among university/college training programs in allied health, special education, and regular education.	1	2	1	2	3
E. To facilitate communication between various state and/or federal agencies and governing bodies.	1	2	1	2	3

Since your graduation, how much have you dealt with the competencies listed above? Please check one in each line below:

	Never	Occasionally	Routinely	Daily
PROFESSIONALLY:	_____	_____	_____	_____
SOCIALLY:	_____	_____	_____	_____

Please give your full job title and the name and address of your employing agency.

TITLE ______________________________ AGENCY ______________________________

APPENDIX C

A PARTIAL LISTING OF MATERIALS AND PUBLICATIONS AVAILABLE THROUGH PRODD CENTERS*

California State University — Fresno
PRODD Director
School of Health and Social Work
CSU-F
Fresno, California 93740

Buyers and Sellers Guide — a compilation of interdisciplinary resources which participants have to share (sell) and what they are seeking (buying).

Community Services and Student Placements Directory — identifies agencies providing services to handicapped children in Fresno, Madera, and Tulare Counties (cross-referenced alphabetically and by disabilities).

Faculty Resource Directory — includes a variety of faculty resources available for use in interdisciplinary training of students — speakers, films, videotapes, etc.

Handbook of Team Building Activities — a training manual for university use in the methods, techniques, and models to be utilized in developing interdiscipling training and collaboration for students who will be providing services to handicapped children.

Three-unit Course, "Enabling the Disabled: Developing Knowledge and Skills for Working Together" — designed to prepare students to interact effectively with disabled adults and children in all areas of community life.

Videotapes available:

> "Training Alliances in Health and Education" — describes PRODD program, focusing on the collaboration of services for handicapped children at Fresno's Ginsburg School as a model.

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*A variety of materials and resources resulting from the preparation and presentation of a series of seminars, conferences, colloquia, and symposia are available at all three PRODD Centers.

"The Role of the Nurse" with handicapped children — summarizes the activities of the school nurse in the elementary and second schools, with particular emphasis on handicapped students who are being mainstreamed.

"The Design and Use of Adaptive Clothing for Handicapped Children" —includes a demonstration of assistance to a handicapped child utilizing a variety of clothing and fabrics.

Northern Illinois University
PRODD Director
School of Allied Health
NIU
DeKalb, Illinois 60115

Assessment Instruments* (See Appendix B) — Curriculum gaps:

"Competencies for Professionals Working with Children Having Handicapping Conditions"

"Assessment of Preparation for PRODD Competencies"

Guide to Electives — for students preparing to work with children having handicapping conditions — careful selection of courses offered in a variety of fields.

Virginia Commonwealth University
PRODD Director
School of Allied Health
MCV Box 526
Richmond, Virginia 23298-0001

Advisors' Reference — 71 courses open to non-majors are listed by department, level, course #, title, prerequisites — to encourage the enrollment of students preparing for a helping profession or involved in service delivery to individuals with disabilities and their families.

Faculty and Community Resources Guide — an extensive listing of agencies/groups/schools, commercial services and equipment, speakers by topics, educational materials, willing advocates, etc.

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*Developed as an adaptation of TAHE Project "Generic Guidelines for Providers of Services to Persons with Disabilities" (See Appendix A).